



# **Environmental and Social Management Framework**

Albertine Region Sustainable  
Development Project (ARSDP)

**Draft Report**

**December 2013**

## Acronyms

ARSDP:	Albertine Region Sustainable Development Project
BTVET	Business, Technical, Vocational Education and Training
CDO	Community Development Officer
ESIA	Environmental & Social Impact Assessment
ESMF	Environmental and Social Management Framework
GDP	Gross Domestic Product
GoU	Government of Uganda
HIV/AIDS	Human Immuno Virus/ Acquired Immunity Deficiency Syndrome
HLG	Higher Local Governments
LLG	Lower Local Governments
MLHUD	Ministry of Lands, Housing & Urban Development
MoES	Ministry of Education and Sports
MoFPED	Ministry of Finance, Planning and Economic Development
MoLG	Ministry of Local Government
NEMA	National Environment Management Authority
PEPD:	Petroleum Exploration and Production Department
RAP:	Resettlement Action Plan
RPF:	Resettlement Policy Framework
UPIK:	Uganda Petroleum Institute, Kigumba
UNRA:	Uganda National Roads Authority
USMID:	Uganda Support to Municipal Infrastructure Development
UTC:	Uganda Technical College
WB	World Bank

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## EXECUTIVE SUMMARY

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The Government of Uganda with support of the World Bank (IDA) is preparing the Albertine Region Sustainable Development Project (ARSDP). The Albertine Rift Valley is a center for rapid growth which is likely to accelerate with impending oil and gas resources development underway in the region. To ensure that benefits of the oil development trickle to local people, GoU seeks to improve connectivity to and within the region and local economic infrastructure. The Districts of Buliisa and Hoima will be the focus of ARSDP project as well as Municipality of Buliisa within these Districts. ARSDP has three components outlined below:

### 01: PROJECT DESCRIPTION

ARSDP project will comprise three components outlined below and detailed in Chapter 2:

**i) Component 1: *Improvement of Kyenjojo-Kabwoya-Hoima-Kigumba Road***

This component is based on the fact that, upgrading of this road would open access to the region and benefit not only oil sector development but also access for agriculture and tourism industry in the region. The improved road will provide connection to principal towns and trading centres in the region.

**ii) Component 2: *Detailed Planning and Priority Economic Infrastructure provision in selected local governments***

This component's main objective is to support urban planning and development of several urban centres in the region. This component will also finance key urban and district infrastructure which support economic development by enabling and enhancing access to local markets. These infrastructure include roads, small bridges and culverts.

The focus of the interventions will be primarily on:

- enhancing economic development related to agriculture, fishing, oil and services related to these sectors; and
- equity by ensuring that communities in these Districts and Municipalities are able to share benefits of the project.

**iii) Component 3: *Business, Technical, Vocational Education and Training (BTJET)***

This component's main objective will be empowerment of local young people to be prepared to take advantage of, and benefit from, emerging economic opportunities in the region. This will be achieved through appropriate training in business, technical and vocational education.

Two institutions: UPIK Kigumba and UTC Kichwamba will receive support, which will be aligned to their development plans and will entail equipping their workshops, upgrading curricula and improving competence of trainers.

Component 3 will also among others involve development of infrastructure (associated facilities e.g. dormitories, dining halls, etc) in the selected BTJET institutions.

The project will be implemented in all districts covered by ARSD (Hoima, Buliisa, Masindi, Kiryandongo, Kyenjojo and Kibaale). However, in the event that additional districts are added to, or some removed from *Component 2* and any additional technical colleges are added under *Component 3*, the ESMF would still apply.

### 02: POTENTIAL SOCIO-ENVIRONMENTAL IMPACTS OF ARSDP

Prediction and forestalling impacts of the proposed project should start with the design and procurement stages as outlined below.

- **Design stage:**

Reason: Some socio-environmental pacts can be prevented by nature of facility design. For example provision of ramp access for disabled people on buildings.

- **Procurement stage:**

Reason: It should be a contractual obligation for the contract to fulfill minimum social-environmental requirements such as having in place an HIV Policy, OHS Policy, Gender Policy, etc and implement social- environmental controls prescribed by this ESMF, subsequent EIA or Project Briefs. These are only possible when these requirements are incorporated in bidding documents at tendering stage or in contractors of successful bidders.

- **Construction/ implementation stage (by contractor):**

Contractors have obligation to implement environmental mitigation actions specified in the ESMF or specific project briefs and ESIs. It is essential that this requirement is made mandatory in contractors' legal contracts and the following controls instituted:

- a) It should be a contractual requirement that Contractors must have a Socio-Environmental Officer to supervise compliance with socio-environmental requirements.
- b) The Supervising consultant should also have a Socio-Environmental Officer.
- c) The Supervising Consultant should not approve contractor's payment certificates when there are outstanding socio-environmental obligations that are not yet fulfilled or impacts fully remedied.

Specific project impacts are discussed in tables below.

#### A) Positive social impacts

Table ES1: Social benefits of project components 2 and 3

	Project component	Benefit/ impact
1	<p><b>Component 2 : Detailed Planning and Priority Economic Infrastructure provision in five local government areas)</b></p> <p>This component will provide urban planning support to municipalities.</p> <p>Under the component, investments will include:</p> <ul style="list-style-type: none"> <li>▪ Roads</li> <li>▪ Drainage including small bridges and culverts, and,</li> <li>▪ Upgrading of basic infrastructure to local markets.</li> </ul>	<ol style="list-style-type: none"> <li>a) Improved roads enabling access to markets will enhance economic development related to agriculture, fishing, oil and services related to these sectors of the economy.</li> <li>b) Access to markets will improve farm gate prices for local farmers, hence household incomes.</li> <li>c) Improved drainage will enhance sanitation and reduce flooding and waterborne disease burden in communities.</li> <li>d) Gender-specific benefits such as: <ul style="list-style-type: none"> <li>▪ Reduced maternal mortality when women in labour can reach healthcare facilities faster.</li> <li>▪ Increased roadside business for women who trade in agricultural produce and crafts.</li> </ul> </li> <li>e) Improved urban plans will ensure optimal use of land, enable environmental conservation, and enhance public health, aesthetics and ease doing business in municipal councils.</li> </ol>
2	<p><b>Component 3: Business, Technical, Vocational Education and Training (BTVET)</b></p> <p>Support will include equipping</p>	<p>Benefits under this component include:</p> <ol style="list-style-type: none"> <li>a) Improved practical training in UPIK and UTC Kichwamba vocational institutions.</li> <li>b) Enhanced pedagogical competency when trainers in vocational institutions are retrained.</li> </ol>

	Project component	Benefit/ impact
	workshops in core trades, upgrading curricula. (Additional facilities e.g. dormitories, dining halls may be provided). Also, linkage with the private sector will be established	<p>c) Linkage with private sector and curricula that are responsive to private sector needs will increase rate of employment of students graduating from these vocational institutions.</p> <p>d) The resultant effect will be increased development of small- and medium-scale enterprises (SMEs) in the region and hence sustainable socio-economic development.</p>

## B) Negative social impacts and mitigation measures

Possible negative impacts of project Components 2 and 3 are discussed in table below together with respective mitigation recommendations.

Table ES2: Negative social impacts of the project Components 2 and 3

	Project component	Benefit/ impact
1	<p><b>Component 2 : Detailed Planning and Priority Economic Infrastructure provision in five local government areas)</b></p> <p>This component will provide urban planning support to municipalities.</p> <p>Under the component, investments will include:</p> <ul style="list-style-type: none"> <li>▪ Roads</li> <li>▪ Drainage including small bridges and culverts, and,</li> <li>▪ Upgrading of basic infrastructure to local markets.</li> </ul>	<p>a) <b>Land take</b> associated with new construction or upgrade of infrastructure or land use change occasioned by new urban plans may lead to loss of assets or physical displacement of structures and businesses.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ Provide due compensation or resettlement to affected entities, as guided by the RPF.</li> <li>▪ Ensure all grievances are conclusively addressed as per RFP.</li> <li>▪ Compensate for any economic displacement occasioned by project development or urban plans.</li> </ul> <p>b) <b>Dust emissions during road construction:</b></p> <p>Dust will stain roadside structures and taint merchandise or produce in shops and markets. Staining may require washing or repainting. Tainted goods for sale (especially sugar, flour, etc) would lose monetary value, hence negative socio-economic impact to affected persons. This impact will be short-term manifesting only during construction phase.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ Contractor should water construction areas to control dust.</li> <li>▪ It is prudent to open only short stretches of roads that can be completed quickly and over which adequate environmental controls (such as watering for dust suppression) can be implemented.</li> </ul> <p>c) <b>Temporary severance of access when constructing roads and bridges</b></p> <p>Severance of access to private property during construction works is a negative impact that would affect children, women, people with disabilities and elderly people unable to jump across deep trenches.</p> <p><u>Mitigation:</u></p> <p>Contractors should devise temporary provisions to avoid severance of access.</p> <p>d) <b>Public safety risks:</b></p>

	Project component	Benefit/ impact
		<p>Civil works and construction traffic may pose public risks especially at school crossings and through busy urban areas where children, women or elderly people may be at higher risk of road accidents.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ Safety signs, flagmen, speed control measures and adequate sensitisation of road construction workers and people in project area should be undertaken to minimise accident risk.</li> <li>▪ Road contractors should work together with local leaders to agree on public safety measures which should be disseminated to local people.</li> </ul> <p>e) <b>Urban planning that overlooks protection of green areas and wetlands:</b></p> <p>The quest for big tax revenue, status of “expansive municipality”, land for business and residential development may all prompt municipal councils to turn swamps and green areas into built areas. Swamps are sinks and filters for stormwater and control flooding while green areas are important for livable urban communities. Urban planning that does not protect these resources would therefore be retrogressive for socio-economic development (and environmental sustainability).</p> <p><u>Mitigation:</u></p> <p>In equal measure, the key aim of new urban plans should be to ensure both social-economic development and environmental sustainability. Plans should provide for and preserve urban environmental resources such as wetlands and green spaces.</p> <p>f) <b>Impact on resources of cultural heritage</b></p> <p>Resources of cultural heritage may be affected if due consideration and care is not taken during developing urban plan and constructing infrastructure. This would be a negative and long-term impact.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ In developing urban plans, municipalities should preserve resources (e.g. buildings, monuments) of cultural heritage.</li> <li>▪ During constructing infrastructure, physical cultural resources should be protected and conserved. Any chance finds encountered should be handed to the Department of Museums and Monuments for preservation.</li> </ul>
2	<p><b>Component 3: Business, Technical, Vocational Education and Training (BTVET)</b></p> <p>Support will include equipping workshops in core trades, upgrading curricula and training of instructors. Additional facilities e.g.</p>	<p>In the long-term, no negative impacts are predicted to ensue from support to UPIK and UTC Kichwamba but issues below should be considered during project implementation:</p> <p>a) Supported institutions should avoid pilferage of workshop equipment supplied by the project (and sale to ever increasing private vocational training schools) by proper inventory control and security. A cost effective security surveillance system may be considered by the project.</p> <p>b) Equipment supplied should match requirements of updated curricula to avoid financial loss and redundant investment.</p>

	Project component	Benefit/ impact
	dormitories, dining halls may be provided. Linkage with the private sector will be established	<p>c) Equipment support should ensure there is adequate room in workshop to accommodate units supplied. If there is need to modify laboratory buildings to increase space in machine workshops, this should be considered early in the planning stage.</p> <p>d) Private vocational training institutions are increasing in number and technical skills. Instructors trained at UPIK or UTC Kichwamba may quickly be lured away by higher pay at private institutions, defeating the purpose and intent of the project. No smart control can be proposed for this risk but management of UPIK and UTC Kichwamba should devise feasible prevention measures.</p> <p>e) Construction of dormitories, dining halls or other buildings on site may have the following impacts:</p> <p>i) <b>Construction noise, vibrations and dust</b></p> <p>Construction noise or vibrations will disrupt teaching and learning. This impact can be significant where construction activities last for several months or spanning examination periods. Exposure to dust from material handling, demolition and vehicle movement may pose short-term respiratory infirmities (e.g. coughs) to persons exposed.</p> <p><u>Impact management:</u> Schools management should require contractors to schedule noisy activities outside class time or examination periods.</p> <p>ii) <b>Occupational safety risks for construction workers</b></p> <p>Undertaking construction activities without necessary safety gear such as hard hats, hand gloves, foot protection and safety latches when working at heights could have risks of injuries leading to disability or even loss of life. These construction workers are the income earners in their homes and extended families therefore this risk would pose long-term financial handicap in affected homes.</p> <p><u>Impact management:</u> All construction workers must be provided with requisite safety gear and trained in their proper use.</p> <p>iii) <b>Safety risks for students near construction sites</b></p> <p>Near and around construction sites, students would be exposed to risks of harm by falling debris, dust and tripping on construction materials (aggregate, wood poles, etc).</p> <p><u>Impact management:</u> Students in vocational institutions are old enough to heed advice to safely keep away from construction sites (unless under instruction or training). Therefore before and during construction, UPIK and UTC administration should sensitize students about construction risks on campus and prescribe safety measures. In addition, safety signs should be provided where necessary for public and student safety.</p> <p>iv) <b>Displacing prevailing uses at locations where new buildings would be built</b></p> <p>It may happen that sites where buildings will be built may currently be used for various purposes e.g. green areas. Building on these locations would stop their</p>

	Project component	Benefit/ impact
		<p>availability for these uses.</p> <p><u>Impact management:</u> Early enough, management of UPIK and UTC Kichwamba should plan to relocate to alternative sites, any activities going on at locations where new structures will be built.</p> <p>v) <b>Excessive enrolment numbers not supportable by available facilities</b></p> <p>Improvement of facilities at UPIK and UTC Kichwamba will attract a large number of students. In quest for revenue, these institutions may enrol more students than can be supported by existing facilities, leading to overcrowding and ineffective teaching-learning experience.</p> <p><u>Impact management:</u> Enrolment numbers should be maintained at levels commensurate with available facilities.</p> <p>vi) <b>Transportation of construction materials</b></p> <p>Along public roads and at construction sites on college campuses, material transportation will increase road traffic with attendant effects such as increased accidents risk especially to children and road dust that could affect road-side shops and markets.</p> <p><u>Impact management:</u> Contractors should ensure vehicles travel at low safe speeds college campuses and public roads. Temporary road safety signs should be provided wherever necessary to ensure road safety..</p> <p>Other impacts may be runoff on site or localised ponding due to inadequate drainage at construction sites. These however would have low significance with proper construction methods.</p>

### C) Positive environmental impacts

For a municipality to grow and develop in the long-term, it cannot disregard its environment. The environment cuts across all sectors, income groups and management areas. An ad hoc approach to environmental issues is fragmentary, expensive and inefficient. For a city to be effective and efficient, it must have an urban plan that integrates environment sustainability into its planning and functioning.

The proposed support in urban planning will enable municipalities incorporate environmental considerations into their structure and function. A municipality's environmental credentials and therefore its marketability, are strengthened if prospective investors can see that sustainable resource use has been factored into urban development strategy, especially the cost of known restraints such as finite water supplies, energy costs, the economic and job-creating potential of eco-efficient industries (for example, waste recycling and renewable energy) and local urban agriculture. Aside from the goal of sustainable development and the impetus to maximise economic, social and environmental benefits, integrating the environment in urban planning and management has additional attractions on a local scale. Budgets of municipalities may benefit from environmental policies which encourage recycling and generate income from sale of recyclable resources, while at the same time needing less landfill space. Energy efficiency can reduce municipal spending on street lighting. Eco-efficiency can result in lower operating costs for local businesses, giving the municipality a competitive advantage in attracting investment. Circular Economy methods like local industrial planning have the potential to reuse resources including waste and water.

Specific benefits municipalities will gain from incorporating environmental planning into urban plans are provided in table below.

Table ES3: Benefits of environmental planning in urban planning

	Actions	Direct effects	Other effects
1	Improved provision of water and sanitation services	Considerable reduction in disease burden from water-borne diseases and premature deaths (especially from malaria in children).	<ul style="list-style-type: none"> <li>▪ For income earners, less time off work from illness or from nursing sick family members.</li> <li>▪ Better nutrition (for example, less food lost to diarrhoea and intestinal worms). Less physical effort needed in collecting water.</li> <li>▪ Lower overall costs for those who, prior to improved supplies, had to rely on expensive water vendors.</li> </ul>
2	Less crowded, better quality housing—through supporting low income groups to build, develop or buy less crowded, better quality housing	<ul style="list-style-type: none"> <li>▪ Drop in household accidents (often a major cause of serious injury and accidental death in poor quality, overcrowded housing) and remove necessity for low income groups to occupy land sites at high risk from floods, landslides or other hazards.</li> <li>▪ Can reduce indoor air pollution</li> </ul>	<ul style="list-style-type: none"> <li>▪ Lower risk for low income groups to lose their homes and other capital assets to accidental fires or disasters.</li> <li>▪ Secure, stimulating indoor space an enormous benefits for children's physical, mental and social development.</li> </ul>
3	Avoidance of hazardous land sites for settlements	Reduces number of people at risk from floods, landslides or risks from other hazardous sites. The damage or destruction of housing and other assets from, for instance, floods or landslides can push low income households into absolute poverty.	Sites within urban areas that may be hazardous for settlements are often well-suited to public parks or green belts.
4	Zoning for green belts	Tree belts purify air (by capturing dust), act as carbon sinks and temper temperature of local airsheds. Green belts are also sinks for stormwater that would otherwise cause floods.	In urban areas trees provide shed for the public.
5	Improved solid waste management services	Removes garbage from open sites and drainage ditches.  Greatly reduced risk of many animal and insect disease vectors and stops garbage blocking drains.	Considerable employment opportunities in well-managed solid waste collection systems where recycling, reuse and reclamation are promoted.
6	Support for community action to improve local environment	If well managed, lots of low-cost ways to reduce environmental hazards and improve environmental quality in informal settlements.	Employment creation; minimum incomes help households avoid poverty.  Can reduce sense of social exclusion.
7	Support for more participatory plans	Low income groups with more possibilities of influencing urban authorities' priorities on environmental policy and investment.	Can lead to low income groups getting greater influence in other sectors.
8	Improved public transport	Affordable, good quality public transport keeps down time and costs for low income groups getting to and from work.	Can reduce air pollution and its health impacts. Can reduce disadvantages of living in peripheral locations and help keep down house prices.

#### D) Negative environmental impacts and risks

There are positive and negative impacts envisaged from urban planning (Component 2). Development of infrastructure (roads, bridges, etc) may impacts such as dust emissions affecting local air quality, improper disposal of construction waste in unauthorised areas e.g. swamps.

They are social impacts associated with transforming private land into public good. Implementation of proper physical planning is a responsibility of local governments, and they lack capacity to enforce compliance. Planning changes may lead to displacement of formal and informal sentiments or economic activities, leading to loss of livelihoods and places of abode.

Other impacts of Components 2 and 3 are discussed in table below.

Table ES4: Potential environmental impacts of Components 2 and 3

Project component	Potential impacts
<p><b>Component 2 : Detailed Planning and Priority Economic Infrastructure provision in five local government areas)</b></p> <p>This component will provide urban planning support to municipalities.</p> <p>Under the component, investments will include:</p> <ul style="list-style-type: none"> <li>▪ Roads</li> <li>▪ Drainage including small bridges and culverts, and,</li> <li>▪ Upgrading of basic infrastructure to local markets.</li> </ul>	<p>a) <b>Dust emissions from road construction</b> activities affecting local air quality.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ Contractor should water construction areas to control dust.</li> <li>▪ It is prudent to open only short stretches of roads that can be completed quickly and over which adequate environmental controls (such as watering for dust suppression) can be implemented.</li> </ul> <p>b) <b>Imprudent management of construction waste:</b> Besides causing visual blight, imprudent disposal of waste in unauthorised areas (e.g. in swamps) would contaminate soil and watercourses, some of which may be ones on which downstream communities depend for water needs. Irresponsible dumping of waste oil at construction sites, stormwater drains or at repair yards would lead to contamination of soil and surface water (rivers and streams) some of which may be used by communities for domestic water supplies.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ Contractor must only dispose waste in authorised sites.</li> <li>▪ When road equipment is repaired at construction sites, all waste oils should be collected for proper authorised disposal, reuse or recycling by a NEMA-licensed entity.</li> </ul> <p>c) <b>Hydrological and water quality impacts at bridge construction sites</b> when water is diverted, depriving downstream uses of enough quantities. Sedimentation and contamination of watercourses (such as with equipment waste oil) at bridge construction sites would affect local users and livestock that depend on these for water.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ Bridge works should obtain construct permit from Directorate of Water Resources Management (DWRM).</li> <li>▪ Contractors must not dump waste in watercourses.</li> <li>▪ Engineering controls should be instituted to avoid excessive sedimentation at bridge construction sites. High sediment loads would affect quality of water available for downstream user.</li> </ul> <p>d) <b>Obtaining construction materials from unpermitted sources (quarry or borrow sites)</b> would promote environmental degradation. Such unauthorised sources often</p>

Project component	Potential impacts
	<p>lack environment management and restoration plans and leave long-term impacts including visual blight, water ponding and public health risk.</p> <p><u>Mitigation:</u> Contractors should obtain/ procure construction materials from sources permitted by local authorities or NEMA.</p>

### 03: ARSDP IMPLEMENTATION ARRANGEMENTS

The sponsor of the project is Ministry of Finance, Planning & Economic Development (MoFPED) of the GoU. However given the various project components, a Steering Committee chaired by the MoFPED to include representatives of MoLG, MLHUD, MoES and UNRA.

#### **Component 1:**

This will be managed by UNRA which will be responsible for finalization of detailed design, bidding documents, cost estimates and related environmental and social activities.

#### **Component 2:**

Overall management of local infrastructure sub-component of Component 2 activities will rest with MLUHD who will be responsible for procurement activities and engaging consultants to assist with detailed design and contract management. Local support will be provided by respective District and Municipal Councils.

For planning sub-component of Component 2, the Ministry of Lands, Housing and Urban Development will take the lead and carry responsibility for drafting Terms of Reference and advising and supporting MoLG, District Councils and Municipal Councils on implementation of the planning sub-component.

#### **Component 3:**

The Ministry of Education and Sports (MoES) will be responsible for implementing this component through the Department of Business, Technical, Vocational Education and Training. There are likely to be capacity constraints (e.g. inadequate staff in implementing department) for implementation of this component will need to be identified and addressed.

MoES will work and coordinate together with respective technical government departments such as Petroleum Exploration & Production Department (PEPD) in MEMD for technical support to Uganda Petroleum Institute - Kigumba (UPIK), especially on practical training proposals and curricula upgrade.

In order to comply with GoU & WB's environmental requirements and to aid various stakeholders to identify and effectively manage potential environmental and social impacts of the proposed project, this Environmental and Social Management Framework (ESMF) was prepared. The ESMF is meant to ensure the provision of infrastructure under the ARSDP complies with the Ugandan Environmental Legislation and World Bank Safeguard Policies. This report outlines the mechanisms to determine and assess environmental and social impacts arising from project implementation, and sets out appropriate mitigation measures, and institutional arrangements for monitoring.

This ESMF describes the proposed ARSDP components, identifies likely social and environmental impacts and proposes management measures to control socio-environmental effects during project implementation.

Potential socio-environmental impacts of all project cycles (development/ implementation and use) have been predicted and mitigation actions proposed. Involvement of existing institutional structures is important especially for impact monitoring. All entities involved in this project have technical capacity however, should there be noted specific needs for effective implementation and monitoring of the project, requisite capacity building interventions should be provided.

# 1 INTRODUCTION

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## 1.1 The proposed ARSDP Project

The Government of Uganda with support of the World Bank (IDA) is preparing the Albertine Region Sustainable Development Project (ARSDP). The Albertine Rift Valley is a center for rapid growth which is likely to accelerate with impending oil and gas resources development underway in the region. To ensure that benefits of the oil development trickle to local people, GoU seeks to improve connectivity to and within the region and local economic infrastructure. The Districts of Buliisa and Hoima will be the focus of ARSDP project as well as Buliisa Town.

## 1.2 Socio-economic importance of Kyenjojo-Kabwoya Road

Kyenjojo-Kabwoya road section (Figure 1) which will be funded by the World Bank, is part of a longer road linking towns of Kyenjojo, Kabwoya, Hoima, Masindi and Kigumba. Socio-economic importance of Kyenjojo-Kabwoya road section cannot therefore be seen in isolation of resources, socio-economic development activities and population centres associated with the entire road.

The mainstay of the economy in districts through which the road passes is subsistence farming of upland rice, maize, beans, cassava, millet and potatoes, whilst commercial farming is also common, dominated by sugar and tobacco. Notable large scale farming includes Kinyara Sugar Works LTD near to Masindi, and British American tobacco which operates around Hoima Town and has contracts with 65,000 growers nationally. The principal regional tourist destination is Murchison Falls National Park (MFNP), about half of whose area is found in Masindi District. Second to Queen Elizabeth National Park, QENP (53,900 visitors in 2008), MFNP was the next most popular wildlife destination in Uganda with 36,800 visitors. The project road is a direct route for tourists travelling between MFNP, *Kibale Forest National Park* and QENP. Upgrade of the road will have key socio-economic benefits below:

- i) The road will support expected increase in vehicular traffic related to oil exploration and production in the Albertine Graben.
- ii) Improved access to markets, social and health services and employment in local governments (districts) along the road. Along the road are found numerous schools, healthcare facilities, markets and trading centres access to which would be enhanced by an improved road. It is evident that an improved road would shorten travel time to medical facilities in case of medical emergencies such as road accidents.
- iii) A key regional benefit will be enhancing connectivity between the Northern Corridor (specifically southwestern Uganda, Rwanda and Burundi and eastern Democratic Republic of Congo) and Kampala - Gulu - Juba corridor. This will improve regional trade. For example, currently trade with Eastern DRC is indicated to be in excess of USD300 million per year and will improve with better road transport infrastructure.

Uganda has a road network comprising National roads (20,000 km), District roads (13,000 km), urban roads (2,800 km) and Community roads (about 30,000 km). District, urban and community roads interconnect communities and districts while national trunk roads link locked Uganda to neighboring countries. Mandated by the Uganda National Roads Authority Act 2006, Uganda National Roads Authority (UNRA) is responsible for management, operation, development and maintenance of the national road network. UNRA is responsible for the management of approximately 20,000 km of National roads of which approximately 3,500 are paved and 16,500 km are gravel unpaved roads. District roads are managed by respective District Local Governments while urban roads and community roads are a responsibility of Urban Authorities and Lower local governments respectively.

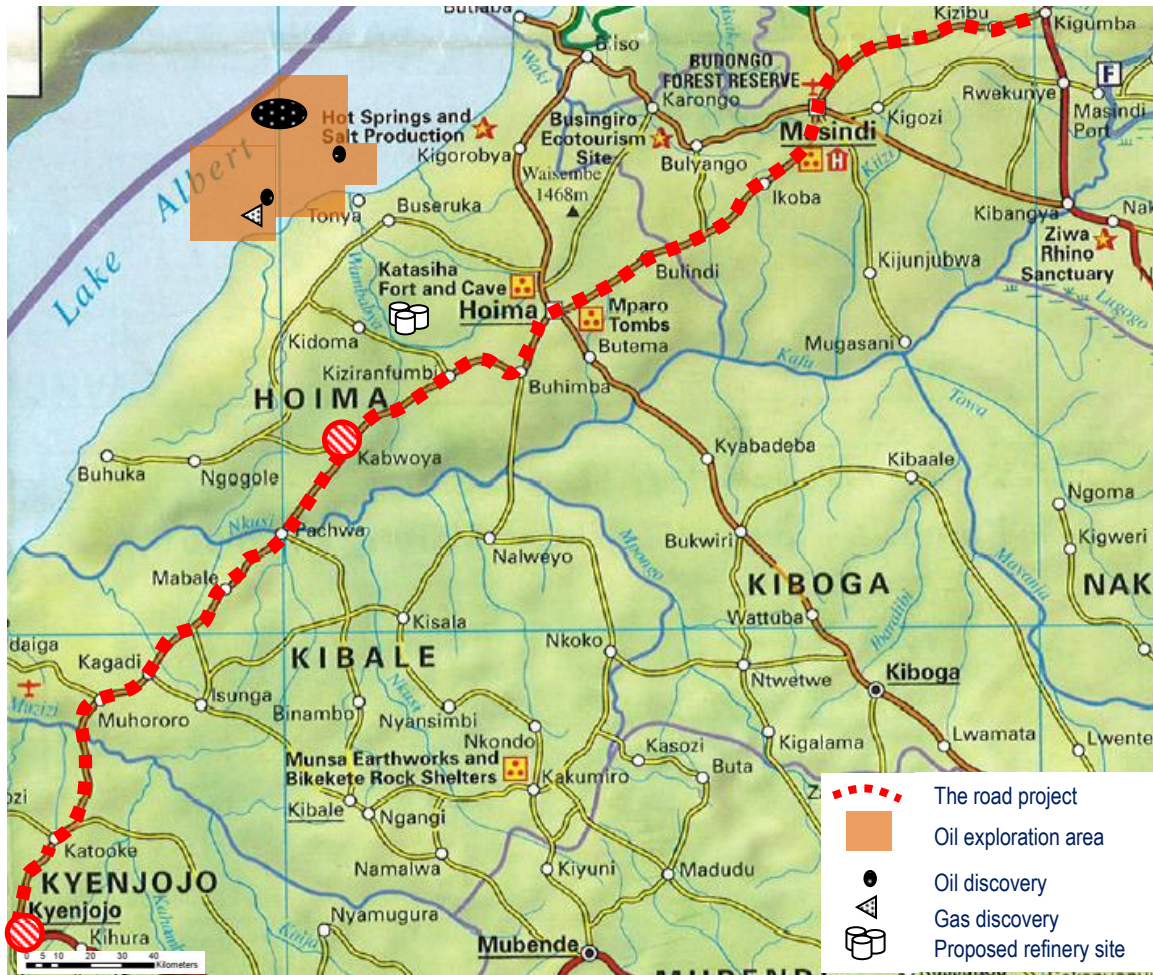


Figure 1: Road location and its connection to road network and on-going economic activities in the region

### 1.3 Overview of infrastructural constraints to market access in the Buliisa, and Hoima districts

Like in other parts of Uganda, access to markets by producers is constrained by infrastructure. Community roads, important for transportation of produce from farmers, are commonly impassable during rain seasons. In almost all production areas of the project districts, markets and infrastructure to access them are generally inadequate. Key infrastructure required for efficient “production centers-market” link is good roads. Others are communication facilities, rural electrification, milk cooling centres, cold and dry storage facilities, and refrigeration. These are essential for this region to enhance marketing of agricultural produce to local and regional markets.

In Buliisa, for example the district has an all-weather road, connecting it to Masindi and Hoima districts in the south, and Nebbi and Amuru districts in the north. It also has ferry services connecting it to West Nile known as Wanseko-Panyimur Ferry and Para Ferry Services. However, only 2 km kilometers of the road down the rift valley escarpment is tarmacked. There are a number of feeder roads being opened by the district local government to link major economic activities to the markets but key constraints still prevail. For example many feeder roads, for instance Sitini-Kihungya are narrow, while others are impassable in rainy seasons.

Therefore Component 2 which will entail detailed planning and priority economic Infrastructure provision in local governments (Hoima District, Buliisa District, Buliisa Town Council) will increase access of farmers to markets all year round. A key responsibility of respective local governments will be to ensure that the infrastructure is routinely maintained in usable condition.



(Source: Sunday Monitor, 3 November 2013)

Plate 1: Example of poor roads inhibiting access to markets.



(Source: AWE Engineers)

Plate 2: Stalls of a typical peri-urban market in Uganda.

#### 1.4 Overview of Business, Technical, Vocational Education and Training in Uganda

The Government recognizes that the productivity of micro and small-medium enterprises (SMEs) in Uganda is greatly hampered by lack of basic technical and vocational skills. Skilled electricians, artisans, carpenters, machine repairers etc. are all in short supply and not available in some cases. For example, the private sector has to import skilled technicians from neighbouring countries, especially Kenya, despite Uganda's high level of under- and unemployment. The current vocational education and training system is considered no longer adequate for the demand placed on it

by a fast growing economy. Uganda Government has decided to implement key reforms with the assistance of the donor community to ensure vocational and technical skills development to support private sector growth. As part of the reforms, the Government shall enact new national vocational education and training legislation and promote training of entrepreneurs.

In its strategy for private Sector development (PSD), Uganda Government recognises that the existing vocational and technical training facilities have considerable technical and financial constraints that have prevented them from developing technical skills in the country. The situation is not likely to improve in the short to medium term, given the competing demands on the Government budget. It is said that the key to resolving these constraints on a sustainable basis in the medium to long term is to provide demand-led skills training on a cost-recovery or profit-making basis. This implies that the training has to be tailored to the needs of the private sector, and therefore either have a strong influence of the private sector or be provided by the private sector (perhaps with direct assistance of donors).

According to the Government strategy for PSD, the short-term policy will give priority to the rehabilitation of existing technical/vocational facilities and training of trainers with support from donors. In the medium and longer term, a framework shall be developed in collaboration with stakeholders that would ensure wider access to training, advice and extension services to SMEs. These could include countrywide training of trainers program in small business management, the establishment of at least one rehabilitated and strengthened private or public vocational institute in each district, the creation of mobile training facilities in nine regions to deliver training, targeting mainly remote areas, and countrywide community based skills training for entrepreneurs.

In line with government 's PSD aspirations, ARSDP will support Uganda Petroleum Institute Kigumba (UPIK) and UTC Kicwamba in practical training to ensure that skills meet the standards required by potential employers.

Under the Ministry of Education and Sports, UPIK is mandated to provide tertiary education in Petroleum Studies in order to support the human resource and professional service needs of Uganda's emerging petroleum sector.

## **1.5 Overview of oil and gas activities in Uganda's Albertine Region**

In early August 2013, Uganda drilled its 104<sup>th</sup> wellbore in its exploration program for petroleum resources in the Albertine Region. This follows three decades of intensive oil and gas exploration activity in the country.

The first deep oil well to be drilled in Uganda was Waki B-1 drilled in 1938, by African and European Investment Company to a total depth of 1,221 metres. The well encountered some oil shows but its quantity and quality were not evaluated. Petroleum Exploration and Production Department (PEPD) has since the 1990s undertaken vigorous promotion of the country's petroleum potential. These efforts paid off when Heritage Oil and Gas signed a Production Sharing Agreement with Government in 1997 and undertook seismic data acquisition in 1998. The company drilled its first well Turaco-1 to a total depth of 2487.7 m in September, 2002 after a period of 64 years since the drilling of Waki B-1 well. A gas discovery was made but it was heavily contaminated with carbon dioxide. The country waited for another four years before making a commercial oil discovery at Mputa. Mputa-1 well was spud on 22 December 2005 and reached total depth of 1,151 m on 13 January 2006. The well intercepted several hydrocarbon bearing zones which were subsequently appraised by Mputa-2, Mputa—3 and Mputa-4. Since 2002, the country has made 21 oil and gas discoveries in the Albertine Graben, which is Uganda's most prospective sedimentary basin.

Uganda exploration program has had great success with 92 of 104 exploration and appraisal wellbores drilled having found oil and/or gas signifying a success rate of close to 90% (compared to average global success rate of between 10 and 30%). This unprecedented success during the past eight (8) years has moved the Albertine Graben from being a frontier basin to a well-established petroleum province. The discovered resources in the Albertine Graben are

currently estimated at over 3.5 billion barrels of oil equivalent in place with at least 1.2 billion barrels recoverable. Appraisal of the discoveries is ongoing and plans for the development of nine oil and gas fields are underway.

Over US \$2 billion has been invested in the sector since 1998 and this is expected to increase as the country progresses from "*Exploration and Appraisal*" to "*Development and Production*". Investments have been mainly in seismic data acquisition and drilling of exploration and appraisal wells. Government is now putting in place necessary infrastructure to support development and production of discovered oil and gas that are expected to contribute to transforming Uganda into a middle-income country. To this end, upgrade of Kyenjojo-Kabwoya-Hoima-Kigumba Road is therefore a key and urgent infrastructure for the oil and gas sector.



Plate 3: Oil exploration activities in the Albertine Graben: An oil rig in Hoima (left) and some of the resources (e.g. cane sugar from Kakira Sugar Works-Masindi) used in drilling operations. (Photo credits: L.Kajubi)

## 2 PROJECT DESCRIPTION

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Albertine Region Sustainable Development Project (ARSDP) will have three components described below.

### **Component 1: Regional Connectivity: Improvement of Kyenjojo-Kabwoya-Hoima-Kigumba National Road.**

Kyenjojo-Kabwoya-Hoima-Masindi-Kigumba Road (238 km) is a principal access route to the Albertine-Graben region and its upgrade would open access and benefit not only the oil sector development but also improve access for agriculture and tourism industry in the region. It will also link principal towns and trading centers in the region besides providing a strategic connection between the northern corridor (specifically south western Uganda, Rwanda and Burundi and eastern Democratic Republic of Congo) and the Kampala-Gulu-Juba corridor. It would also improve access to markets, social and health services and employment opportunities in the region. Feasibility study for upgrading the road was financed by Government of Uganda and detailed design, cost estimates and Environmental and Social Impact Assessment (ESIA) have already been prepared. According to the design, the upgraded road will be a Class II paved road with two lanes in each direction, each lane having width 3.5 meters. The road will also have paved shoulders on either side. A new 20 meter single span bridge will be constructed across Nguse River to support two lanes of traffic with footways each side.

AfDB will finance a 138 km section of the road from Kigumba to Kabwoya while the World Bank (IDA) is to finance a 100 km section from Kabwoya to Kyenjojo.

The implementing agency for the road project is the Uganda National Roads Authority (UNRA). World Bank has reviewed the project's ESIA which has since been updated to incorporate the Bank's comments. Thus the Consultant for this ESMF assignment is not required to carry out work to prepare an ESMF for *Component 1* but for completeness, reference status of the environmental work carried out for this component, including key issues identified, proposed mitigation measures and documents available and their status.

### **Component 2: Detailed Planning and Priority Economic Infrastructure provision in selected local government areas**

The objective of this component is to support urban planning and development of several urban centers in the Albertine region. In addition to supporting on-going regional planning efforts by the Ministry of Lands, Housing and Urban Development it would also support local planning processes. Key urban and district infrastructure investments which would support economic development will be financed. These investments are currently being defined but would primarily include:

- Roads
- Drainage including small bridges and culverts; and
- Upgrading of basic infrastructure to local markets.

Priority and connectivity infrastructure will be provided in Districts of Hoima, Bulisa and Municipalities of Bulisa, which are expected to experience urban growth pressure. The focus of the interventions will be on:

- i) enhancing economic development related to agriculture, fishing, oil and services related to these sectors of the economy and;
- ii) equity by ensuring that communities in respective districts and municipalities share benefits of the Project.

Specific planning needs and local infrastructure to be provided under the Project are currently being prioritized and will be the core focus of this ESMF preparation assignment.

### **Component 3: Business, Technical, Vocational Education and Training (BTVET)**

Oil exploration is expected to expand opportunities for employment and income generation in the region. Although direct employment will reach a peak during the construction phase of oil and gas development infrastructure (expected to start in 2-3 years) and will subsequently plateau off to much lower levels, the peripheral economic activities will stimulate businesses and demand for different levels of skilled labor. GoU places great emphasis on empowering local young people to be better prepared to take advantage of, and benefit from, economic opportunities that will emerge in the region.

Two institutions: UPIK Kigumba (in Kigumba, Kiryandongo District) and UTC Kichwamba (in Fort Portal, Kabarole District) will be supported by equipping workshops in core trades, along with upgraded curricula, certification, testing and improved trainer competencies. Additional facilities such as dormitories, dining halls and basic services may be provided based on assessed need and available resources. The support to the institutions will be aligned with their development plans. In order to achieve investment efficiency, institutions will be encouraged to share facilities, particularly workshops for the practical training. Linkages with the private sector will be established to ensure that skills meet the standards required by potential employers.

The specific BTVET needs to be provided under the Project are currently being prioritized and will also be a core focus of this ESMF preparation assignment.

The project will be implemented in all districts covered by ARSD (Hoima, Buliisa, Masindi, Kiryandongo, Kyenjojo and Kibaale). However, in the event that additional districts are added to, or some removed from *Component 2* and any additional technical colleges are added under *Component 3*, the ESMF would still apply.

### 3 BASELINE CONDITIONS IN PROJECT DISTRICTS

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Social-environmental conditions are important for understanding potential socio- economic impacts of ARSDP such as its effect on existing social services, availability of local labour and induced changes in population dynamics (in-migration, effects of prostitution and HIV/AIDS). The social economic baseline provides a background against which to judge how local communities might perceive the project and how different socio-economic parameters may change during and after the proposed project. Community expectations for the project to improve local living conditions and infrastructure depend on state of economic development in a community, often being more prevalent in rural impoverished communities. General baseline environmental and socio-economic conditions in the three districts comprising the project area are discussed in sections below and will, in many cases, provide a basis for predicting impacts of ARSDP.

#### 3.1 LOCATION AND RELATIVE POPULATION DENSITY

The districts (Hoima and Buliisa) where ARSDP will be implemented are shown in Figure 2 below.

**a) Buliisa district:** Buliisa was created in July 2006 and was formerly part of Masindi District. It is located in the mid-western part of Uganda with headquarters at 340 km from Kampala. It is bordered by Nebbi district to the North, Masindi district to the East, Hoima to the South and Democratic Republic of Congo to the West.

**b) Hoima District** is bordered by Buliisa District to the north, Masindi District to the northeast, Kyankwanzi District in the east, Kibaale District to the south, Ntoroko District to the southwest and the Democratic Republic of the Congo across Lake Albert to the west. Hoima, the location of the district headquarters, is located approximately 230 kilometres, by road, northwest of Kampala city.

Figure 2 below shows location of project district in Uganda. The figure also provides insight into population density of the districts, showing Hoima as the most populous and Buliisa the least populated.

Other socio-environmental baseline conditions are provided in Sections 3.2-3.4.

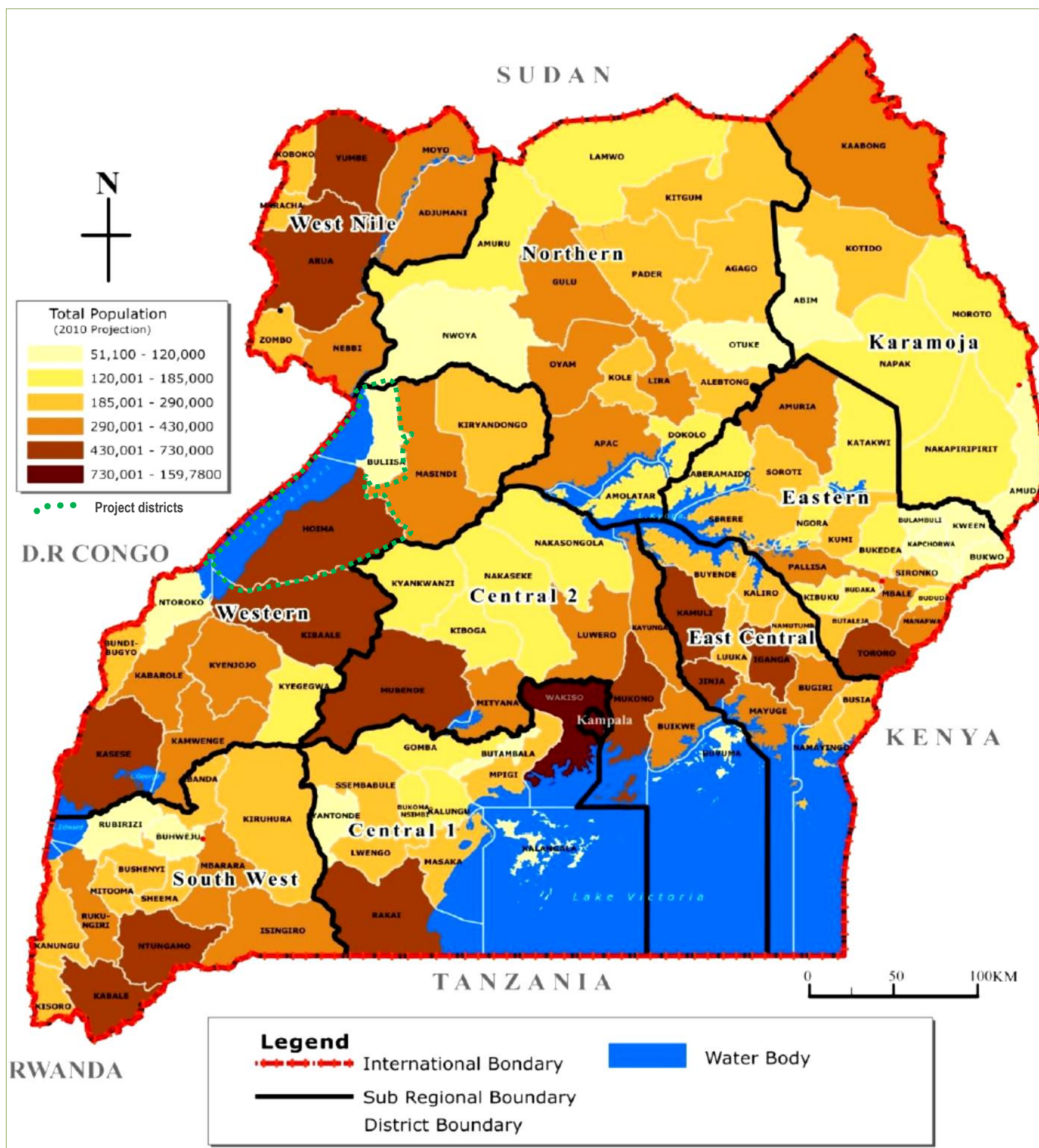


Figure 2: Hoima and Buliisa Districts in mid-western Uganda and their population

## 3.2 HOIMA DISTRICT

### 3.2.1 Geology and Topography

Much of the district is occupied by sedimentary beds of the Bunyoro geological series mainly represented by tillites and phyllites with subsidiary amounts of sandstones and conglomerates as basal members. These rocks are generally classified under Pre-cambrian era, which are part of the dissected African surface. Their distribution follows the weathered detritus that had accumulated prior to faulting. This has subsequently been removed by post rift valley geological erosion. Other rocks affected by post rift valley erosion include quartzites, granites and schists and occur along the southeastern boundary in Buhinga, Buhanka and Kyabigambire sub-counties. Along Lake Albert shores in Buseruka sub-county is a broad tract of river and lake alluvium laid down as rift valley floor deposits. At Kaiso in the Albert Rift a fossiliferous ferruginised bed occurs in sediments marking a period of recession during interpluvial phase when the Lake Albert was formed.

Hoima's topography is part of the dissected African surface characterized by broad, flat-topped ridges of about 1,000 m to 1,100 m in height, whose formation is given as upper *Cretaceous* (65 - 135 million years ago). The surface rises to a plateau, which ranges between 600 m and 800 m above sea level. Therefore, the district can be divided into three main topographic zones below:

#### i) **Dissected plateau**

This is the most dominant landscape in the district characterised by topography which is either flat topped and capped with lateritic duricrust or rounded and deeply weathered. The hills generally rise 30 m to 50 m or more above valleys and are remnants of the ancient Buganda surface, which experienced a slow uplift during the mid-Tertiary period and later dissected by a rejuvenated drainage system, resulting in an elevated dissected plateau.

#### ii) **Escarpment stretch**

This zone covers a watershed running throughout its length approximately parallel to Lake Albert from Kyangwali through Biseruka to Kigoroby sub-counties and has been affected by rift valley faulting. The topography is deeply incised by streams and rivers. A typical example is River Wambabya flowing off the escarpment.

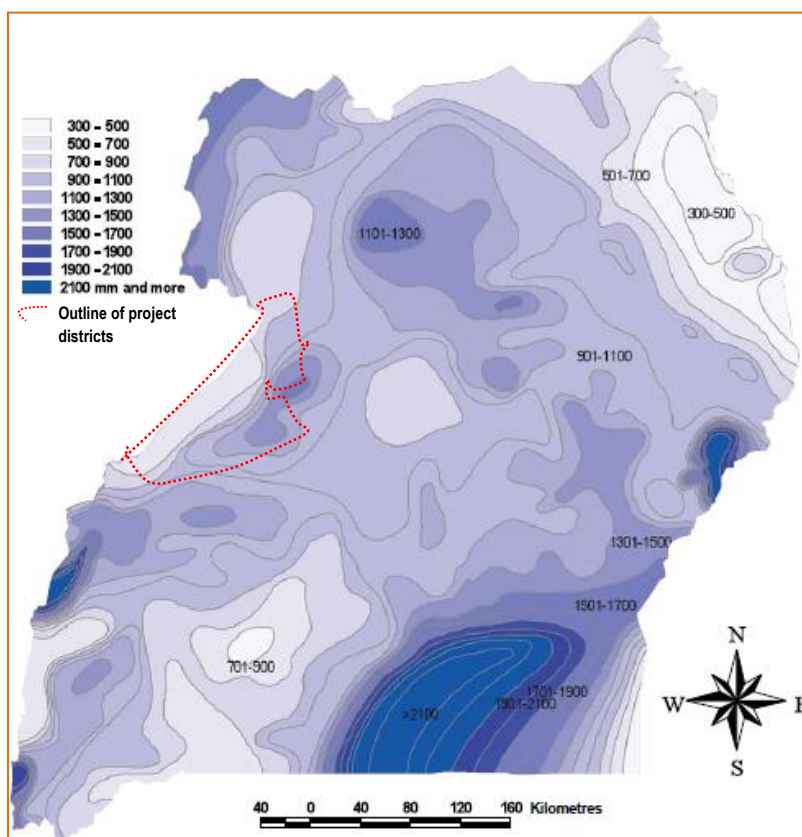
#### iii) **The Rift Valley**

The area lying in the rift valley is occupied by Lake Albert. This is represented by early Pleistocene or Acholi surface. It is essentially a flat area of sand beaches with gradients of less than 1 percent. [http://upload.wikimedia.org/wikipedia/commons/9/98/Uganda\\_Hoima.png](http://upload.wikimedia.org/wikipedia/commons/9/98/Uganda_Hoima.png) The rift valley is one of the most important topographical features that influence environmental processes in Hoima district. The topography of the rift valley has presented problems mainly associated with soil erosion, scarcity of land for farming and settlement. Transport and communication in the district are also adversely affected by the terrain with communication routes avoiding steep slopes and ridges. An example is the winding road from Buseruka to Hoima, which is very poor and almost impassable in rainy seasons. This makes many parts of the district rather remote and inaccessible. However, some parts of the district are characterized by gentle undulating hills like those found in the western part of the District. The terrain drops sharply on the rift valley escarpment to form wide valleys often occupied by wetlands.

*Relation to the project: Geology and topography will only be relevant to upgrade of Kyenjojo-Kabwoya-Hoima-Kigumba Road in so far as acquisition of gravel or aggregate depends on local geology. In addition, location, intensity and spatial extent of earthworks would depend on topography of a given road section.*

### 3.2.2 Climate

Hoima District receives a total rainfall of about 700 to 1000 mm per annum (Figure 3). Wetter months are April-May and September-October, with two dry spells in June-July and December-January. Western areas bordering the rift valley are the driest and hottest. The district has generally high temperatures ranging between 15 °C to 32 °C with an annual mean of 28°C. Relative humidity in the district is high during rainy seasons, reaching maximum levels in May. The lowest humidity is in the dry season with minimum levels in January.



Source: NEMA (2009)

Figure 3: Uganda rainfall map

*Relation to the project:* Of all project components, climatic conditions will be most relevant to the road (Component 1) because associated impacts: dust, noise and construction schedules can all be influenced by meteorological conditions. Dust impacts would be more significant during dry seasons. Generally noise is more noticed during low temperature seasons and under high humidity conditions.

### 3.2.3 Hydrology

Hoima district is endowed with watercourses, making fishing a major economic activity. Watercourses include Lake Albert which covers about 2268.6 sq. km (38%) of the district and a number of wetlands, the most prominent ones being Kafu, Wambabya, Waki, and Kabale. Rivers in the district include Waki, Hoima, Wambabya, Nguse and Kafu.

*Relation to the project:* Hydrology will be relevant to the road (Component 1) because associated impacts: dust, noise and construction schedules can all be influenced by meteorological conditions. Dust impacts would be more significant during dry seasons. Generally noise is more noticed during low temperature seasons and under high humidity conditions. Along the road, watercourses will be sources of water for road construction works such as compaction and dust control.

### 3.2.4 Ecological Resources

Apart from Component 1 (Road project), Component 2 and Component 3 will have no relation to ecological resources. Therefore discussion of ecological resources below is only in relation to the road project.

#### a) Fauna

Apart from a 1.4 km stretch near Kagombe Forest Reserve, the rest of the road has no significant fauna and habitats of conservation concern and is characterised by remnant forest that is currently under considerable encroachment for cultivation.

#### b) Flora

Forest/Mosaic Savanna is the predominant type of vegetation in Hoima District covering Buhanguzi County - Kabwoya, Kyangwali, Buhimba and Busisi and in Bugahya. Hoima – Masindi road section is dominated by woodland, wetlands and agricultural/settled systems. In dry areas along this road are trees of *Mangifera indica*, *Albizia coriaria*, *Maesopisis eminii* and *Melicia excelsa*. Swamps along the road have *Cyperus papyrus*, *Pennisetum Purpureum*, *Phoenix reclinata*, *Acacia senegal* and *Albizia coriaria*. None of these species are categorised as endangered according to IUCN Red List<sup>1</sup>.

*Relation to the project:* It is likely that Swamps along the road will be water sources for construction works. These watercourses may also be impact receptors if contaminated by construction activities. The road section through Kagombe Forest Reserve will not be widened beyond existing road reserve therefore no impact is anticipated on trees lining adjoin the road boundary.

### 3.2.5 Socio-economic Baseline

#### a) Population

In 2002, the national census estimated population of Hoima District at 349,200, with an annual population growth rate of 2.8 percent. It is estimated that in 2010, the population of Hoima District is approximately 447,700 (Table 5.17).

Table 1: Hoima district population in 2010

Division	Household	Male	Female	Total	Percent of Total
Hoima	70,286	172,046	171,572	343,618	4.6
Bugahya	42,214	98,265	100,568	198,833	4.7
Buhanika	4,512	10,071	9,979	20,050	4.4
Buseruka	5,012	12,288	11,856	24,144	4.8
Busiisi	2,919	6,753	7,036	13,789	4.7
Hoima T.C.	7,177	12,944	14,990	7,934	3.7
Kigorobyia T.C.	934	1,730	2,007	3,737	4.0
Kigorobyia	8,705	22,956	23,614	46,570	5.3
Kitoba	6,643	16,257	16,224	32,481	4.9
Kyabigambire	6,312	15,266	14,862	30,128	4.8

<sup>1</sup> <http://www.iucnredlist.org/>

Source: Uganda Bureau of Statistics, 2002

### **b) Ethnicity**

The *Banyoro* and *Bagungu* form the dominant tribes accounting for about 77%, followed by the *Alur* and *Jonam* (7%), *Bakiga* (4%), *Lugbara* and *Aringa* (3%) and others (9%). This ethnic diversity shows tolerance of the local community to amicably coexist with people of different origins and probably foretells minimal social disruption when project implementation commences.

### **c) Administrative structure**

The District is administered on a well-defined hierarchy of authority deriving its powers from the Local Government Act 1997, as amended in 2005. It is governed by democratically elected District Local Council chaired by the District Chairperson which, is the highest policy making body. At the top is the District Local Council while at the bottom is the Local Council 1 equivalent to a village. The District is divided into 2 counties of Bugahya and Buhaguzi, 11 sub-counties, a town council, municipal council and 536 villages. Each county is a political constituency, represented in the parliament of Uganda by an elected Member of Parliament.

*Relation to the project: Population size correlates with magnitude of benefit/ impact that will emanate from the proposed project. Local leaders will have jurisdiction over areas in which the project will be implemented. These leaders will lend support to the project through information dissemination to the public. Ethnicity in the district shows some tribes being proportionately small in comparison to the dominant tribe. However none of these are classified as "Indigenous People" hence this disparity in population size is inconsequential for all project components.*

### **d) Land use and tenure**

Project Components 1 and 2 may entail land take. A resettlement Action Plan for the road project was prepared but wherever land is taken during planning and development/ rehabilitation of priority economic infrastructure, owners will have to be compensated irrespective of type of tenure. Land tenure refers to rights provided by a legal system, through which a person or group of persons gain(s) access to land. The four land tenure systems in Hoima District are Public land, Customary, Freehold and Leasehold.

*Relation to the project: Population size correlates with magnitude of benefit/ impact that will emanate from the proposed project. Local leaders will have jurisdiction over areas in which the project will be implemented. These leaders lend support to the project through information dissemination to the public. Ethnicity in the district shows some tribes being proportionately small in comparison to the dominant tribe. However none of these tribes/ people*

### **e) Employment, livelihoods and natural resource use**

The mainstay of Hoima District economy is agriculture and the majority of the population is engaged in subsistence farming favoured by good climate and fertile soils. A number of people also derive livelihood from fishing, particularly on Lake Albert. Fish farming is also practiced by some families within inland water bodies including wetlands, rivers and ponds.

*Relation to the project: Project Components 1 & 2 will directly benefit local people. Access to markets by improved roads enhances trade, immediately boosting local household incomes.*

### **f) Education**

Hoima like other districts in the country has implemented successfully the government Universal Primary Education (UPE) programme. The district has a total of 180 primary schools with 151 governments, 16 private and 13 community schools. For secondary schools, the district has a total of 29 schools of which 11 are government schools,

12 private and 6 community-owned. Vocational training is privately founded and notable private or not-for-profit training entities in Hoima District are:

- Mothers' Union Vocational Training Centre,
- St. Simon Peter's Vocational Training Centre,
- Nile Vocational Institute,
- Kitara Institute of Commerce,
- Media and Vocational Studies,
- Kabalega Royal Institute (for enable orphans and vulnerable children) and
- Hoima Mothers' Union Vocational Training Centre, which offers vocational training to girls unable to continue to secondary education.

*Relation to the project: Vocational skills stimulate and support small and medium enterprises (SMEs) products of which require access to markets. Therefore Components 1 and 2 will be beneficial to vocational training in Hoima District and access to markets associated with their activities.*

#### **g) Health and sanitation**

The District has one hospital, 1 Health Centre IV, 16 Health Centre III and 21 Health Centre II. Seven of the Health Centre IIIs are NGO-owned while the rest are government owned. Common diseases are upper respiratory tract infections, malnutrition, and malaria, diarrheal diseases, HIV/AIDS, dental diseases and bilharzia along the lake shores. Like many districts, HIV/AIDS is a major healthcare challenge in Hoima and has a negative impact on overall socio-economic development process in the district. Threats from HIV/AIDS to Hoima District include:

- Death of economically active people,
- Creation of a large orphan population,
- Effect on economic development production of the District since energetic people are affected,
- Distortion of the social setting in the community.

*Relation to the project: Health and sanitation conditions will be most relevant for implementation of Component 1 of the project expected to utilize a considerable number of road construction workers.*

#### **h) Roads**

The road network is by far the most important mode of transport infrastructure in the district. Like most districts of Uganda, Hoima has got three types of road network classified in accordance with the type of surface and institution/authority responsible for their maintenance. Trunk roads are maintained by the Ministry of Works & Transport while feeder roads are a responsibility of Local Administration. There are over 800 km of feeder roads leading into rural areas but most of them are generally in poor condition. There are 3 major roads namely Kampala-Busunju-Kiboga-Hoima road, Kampala – Bombo – Kafu – Masindi - Hoima road and Masindi – Hoima – Kagadi – Kibaale– Fort Portal road.

*Relation to the project: Together with the road (to be upgraded in Component 1), existing roads will support business hence local social economic development in Hoima District.*

### **3.3 BULIISA DISTRICT**

Baseline conditions of Buliisa District are outlined below and their relevance to the project.

### 3.3.1 Geology, Hydrology and Topography

Buliisa area lies within the Albertine Graben, Uganda's prolific petroleum area, which forms the northernmost part of the greater East African Rift System (EARS). The Graben stretches a total distance of over 500 km with an average width of 45 km from the border between Uganda and Sudan in the north to Lake Edward in the south. It is generally oriented in a NE-SW direction through most of its length. The Albertine Graben is a Cenozoic rift basin formed and developed on a Precambrian Orogenic belt of the African Craton. Rifting, which led to formation of the Graben was initiated during the late Oligocene or early Miocene either by reactivating old normal faults or creating new faults (PEPD Brochure, 2007).

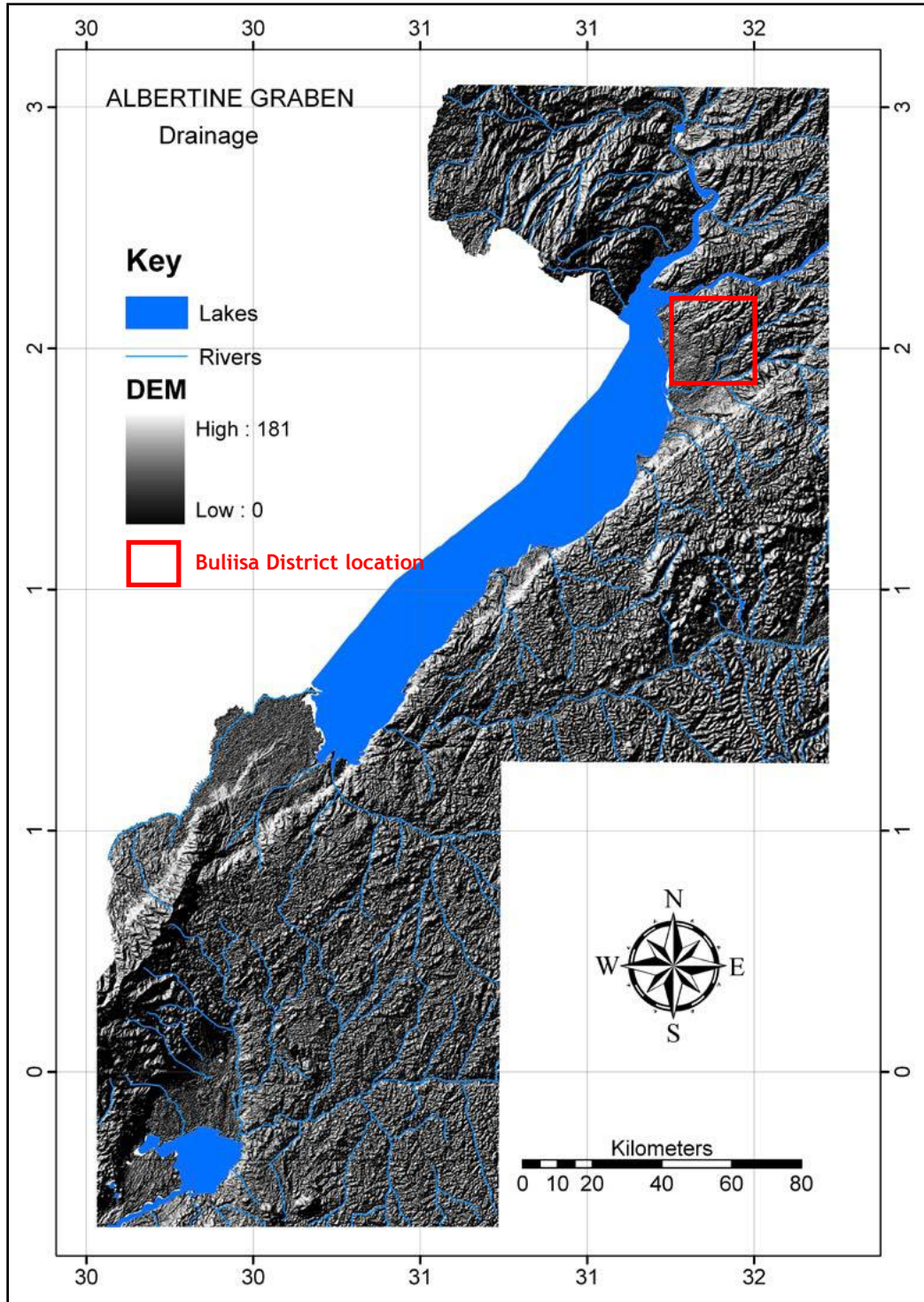
Apart from proximity to Lake Albert and Victoria Nile, Buliisa District (and specifically the project site) does not have major rivers flowing through it as shown in Figure 4.

*Relation to the project: Geology, hydrology and topography will most especially be relevant to the road project (Component 1) and Component 2. For example silty soils in Buliisa will likely pose challenge for construction and maintenance of gravel roads.*

### 3.3.2 Climate

Buliisa District has a bi-modal rainfall pattern and based on amount of rainfall received, the District can be divided into three major climatic zones: high rainfall zone, medium rainfall zone and low rainfall areas. The wetter periods occur from March to May and September to November. Two drier periods occur from June to August and December to February. Temperatures are moderate averaging between 18 and 30°C with the hottest spot of Buliisa District lying in the Rift Valley. Monthly minimum temperatures vary between 12°C and 14.6°C and monthly maximum temperatures vary between 30.8°C and 38.5°C. The relative humidity is highest in May and lowest in January, following the temperature pattern (Department of Meteorology, 2003).

*Relation to the project: Same as in Section 3.2.2*



Source: Environmental sensitivity atlas of the Albertine Graben, 2009, p10; DEM= Digital Elevation Model (90M pixel); Elevation in meters

Figure 4: Albertine Graben drainage

### 3.3.3 Administrative Divisions

Buliisa District is currently has one county with two sub-counties (Buliisa and Biiso) and one Town council (Buliisa Town council). Both Buliisa and Biiso sub-counties are each subdivided into three parishes. Biiso is composed of Biiso, Butiaba, Kihungya parishes while Buliisa comprises of Kigwera, Kisiabi and Ngwedo parishes. The proposed oil well is located in Kisiabi Parish, Uriibo Village. The project area is under jurisdiction of Buliisa district administration. A key social-economic importance of Uriibo village is being an area that connects to other oil wells. Besides central government administration structures, Bunyoro Kingdom is an important cultural institution in the project area.

### 3.3.4 Ethnicity

Banyoro are the majority in Buliisa followed by the Alur. The Bagungu are fifth in ranking. This also indicates that the major languages used are Lunyoro and Alur. The above ethnic composition may change in future due to oil exploration. While some ethnic groups may increase in number others may become smaller.

### 3.3.5 Population and Demography

According to national population census of 2002, the total population of the District which comprises of Buliisa County was 63,363 (31,022 males and 32,341 females) but projected to be 80,800 in 2012. Buliisa District population is unevenly distributed among the sub-counties with Buliisa sub-county having the biggest population.

### 3.3.6 Land Tenure System

All land in the project area is public and communally used with ownership rights exercised in proportion to one's proximity to land or extent of land an owner has put under production (e.g. acreage cultivated). Livestock is communally grazed without access restrictions in areas demarcated for livestock keeping.

### 3.3.7 Employment, Livelihoods and Resource Use

The major economic activity in proposed project area is subsistence crop farming. Other key occupations are cattle rearing and retail trade. Common crops include cassava, cotton, maize, millet, sesame (simsim) and pigeon beans. Commercial and ornamental trees are also planted on small-scale household level basis. Buliisa was once renowned for growing high quality cotton, an economic activity that has since been waned off due to low market prices.

### 3.3.8 Education and Literacy

There are 27 primary schools in the District, four secondary schools (two government aided and two private), but there is no vocational or tertiary institution in entire District.<sup>2</sup> Some statistics about primary school education in Buliisa (as at end of 2006)<sup>3</sup> is given below:

- Only 1 in 6 children who begin school reach Primary Seven (P7 – the last year of Primary education),
- Only 4% reach P7 without repeating,
- There is a 1:74 teacher/pupil ratio,
- There is a 1:100 classroom/pupil ratio,
- Three pupils share one book,
- 25% absenteeism rate,

<sup>2</sup> Buliisa District Local Government, *A Five Year District Integrated Strategic Plan for Orphans and Other Vulnerable Children 2008 – 2012*, 2008.

<sup>3</sup> Buliisa District Local Government, *2007: A Five Year District Integrated Strategic Plan for Orphans and Other Vulnerable Children 2008–12*.

- Of all districts in Uganda, Buliisa was ranked in the bottom 10 in the 2007 National Primary Examinations,
- Classroom seating is only 60% adequate,
- Teachers' houses are only 12% adequate.

These statistics depict an area with low literacy levels and attendant socio-economic ills. The district has a usable classroom stock of 143 out of 269. The dropout rate is at 46%. The gap between male and female school enrolment is wide and increases at higher education levels. Currently 48% of primary school students are girls but only 32% for secondary school students are girls. The education enrolment in the district is given in Table 24. The overall illiteracy rate is at 63%. Illiteracy among women is 46% compared to 36% for men. Although the functional adult literacy (FAL) courses were established throughout Buliisa to address this problem with over 1760 learners in 2009 of which over 70% are females, to date less than 30% of total illiterate women have benefited. Literacy rates are lower in rural than in urban areas, and much lower for women than for men.

### **3.3.8 Infrastructure**

#### **3.3.8.1 Transport**

The roads in the district are categorized as central government roads, district roads, feeder roads and access road/community roads. The district has an all-weather road, connecting it to Masindi and Hoima districts in the south and Nebbi and Amuru districts in the north. It also has ferry services connecting it to West Nile known as Wanseko-Panyimur Ferry and Para Ferry Services. Only two kilometers of the road around the rift valley escarpment is tarmacked. There are a number of feeder roads being opened by the district local government to link the major economic activities to the markets. Many of the feeder roads, for example Sitini-Kihungya, are narrow, while others are impassable during rainy seasons due to potholes and water-logged spots.

Key statistics of roads in Buliisa are shown below:

- Length of trunk roads: 105 km
- District roads: 100 km
- Length of district access roads: 92 km
- Length of tarmac road: 2 km

#### **3.3.8.2 Water supply**

Borehole for water supply, seasonal streams and ponds and the lake are the main sources of water in Buliisa District.

#### **3.3.8.3 Energy**

Buliisa has no grid electricity and wood (biomass) fuel is the major source of cooking energy. People use firewood for cooking and paraffin lamps for lighting at night. Charcoal is mainly used in Buliisa Town where also few town dwellers use diesel-powered electricity generators.

### **3.3.9 Tourism**

A key tourist attraction in Buliisa is Murchison Falls National Park renowned all over the world for its unique biodiversity. The Delta, a wetland area at the confluence of Albert Nile and Victoria Nile, is designated a *Ramsar* site of international importance as migratory bird sanctuary.

### 3.4 MASINDI DISTRICT

#### 3.4.1 Geographical location

Masindi District is located in the Mid-western part of Uganda, with its headquarters 216 km away from Kampala. It borders Kiryandongo in the North, Kyankwanzi in the South- East, Nakaseke in the Southeast East, Kiboga in the South, Hoima in the South West and Buliisa in the West. The District is at an average altitude of 1,295 m above sea level, situated between 10 22' and 20 20' North of the Equator, longitude 310 22' and 320 23' East of Greenwich<sup>4</sup>.

#### 3.4.2 Geology and Topography

Masindi district is generally a plateau land with an altitude of 1,295 m on average above sea level. Undulating hills with some pronounced high points are spread out in the District. The highest altitude points include Kigulya 1,510 m above sea level in Miirya sub-county, Fumbya in Bwijanga and Kaduku in Kigumba. To the west is an arm of the great Western Rift Valley. There are several features associated with Rift Valley formation such as sudden slopes and flat areas of the Murchison Falls conservation area.

*Relation to the project: Mostly for Component 1 of the project, geology and topography will influence earthworks associated with road construction.*

#### 3.4.3 Climate

The District has a favourable climate and its rainfall pattern is bimodal. The district receives an annual long-term average rainfall of 1,304 mm. It has three main climatic zones according to rainfall levels: (i) high rainfall zones: These are areas, which receive more than 1000 mm of rainfall per annum. These include, Budongo, Pakanyi, Karujubu and Nyangahya sub- counties; (ii) medium rainfall zones: These are areas with total amount of rainfall ranging between 800 mm – 1,000 mm per annum i.e. Kigumba, Bigando and Isimba parishes in Miirya sub-county; and (iii) lower rainfall zones: These are areas, which receive less than 800mm of rainfall per annum. These include Masindi Port, and Kimengo sub-counties.

*Relation to the project: Same as Section 3.2.1.*

#### 3.4.4 Hydrology

Masindi district is endowed with a number of water bodies such as River Nile at Masindi Port, Lake Maiha in Bwijanga sub county, Lake Kiyanja in Miirya Sub County, River Kafu in Kimengo and Bwijanga Sub-Counties, River Waki in Budongo and Biso sub-counties and Siipi Falls in Biiso sub-county (Masindi Environmental Policy, 2009).

*Relation to the project: None of these water bodies are crossed by the road to be rehabilitated (Component 1). Component 3 will not have hydrological impacts. Conversely, Component 2, which will entail urban planning and development of several urban centers in the Albertine region, investment in bridge and upgrade of roads to enhance access to markets, may have hydrological impacts depending on specific sites and nature of infrastructure.*

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<sup>4</sup><http://www.masindi.go.ug/>

### 3.4.5 Ecological Resources

The five broad categories of vegetation of Masindi district include: tropical forests, savannah grassland and savanna woodland, permanent and seasonal swamps (Masindi District Local Government, 2009). Vegetation cover on hills is dominated by mostly medium-altitude forest, while valleys have permanent swamps. Hilly vegetation provides an excellent watershed system for drainage southward and south-east into the River Kafu, which flows into the Victoria Nile.

*Relation to the project: No major watercourses will be crossed by the road to be rehabilitated (Component 1). Component 3 to support vocational training will not have impact on ecological resources either. However urban plans developed by local governments or roads and bridges rehabilitated may have impact on streams and swamps.*

#### 3.4.5.1 Fauna

The road section between Masindi and Kigumba has no significant areas of sensitive environment. Areas within the road reserve are characterized by *Lantana camara*, an invasive weed with little significance as habitat for both birds and mammals. Also recorded along the road section were a few *Militia excelsa* species known for their significance as nesting grounds especially for large waterfowl (Pelicans, Spoonbills, several species of Herons) and Marabou storks *Leptoptilos crumeniferus*.

*Relation to the project: No significant faunal impacts are anticipated for all project components (1, 2 and 3).*

#### 3.4.5.2 Flora

Four main habitat types identified along Masindi–Kigumba link were: grassland savanna, wooded grassland, wetlands and cultivated/settled areas. Of the four, the dominant habitat was wooded grassland. The two areas under wetland vegetation were encountered in Masindi Town, near Nyakatojo between Pakanyi and Kizibu villages and *Cyperus papyrus* was the dominant species. In a few cases this papyrus was noted to be used on a small-scale for making mats for household use.

*Relation to the project: None of the project components will have major impact on flora.*

### 3.4.6 Socio-Economic Baseline

#### 3.4.6.1 Demographics

##### a) Population

At growth rate of 3.6 percent, the current population of Masindi district is estimated to be 527,900 people of which 264,500 are male and 263,400 are female. The district population density stands at 73 persons per square km. The district's life expectancy is 43.7 years. Out of the total population, 42,100 (8%) live in urban areas.

##### b) Ethnicity

Masindi District has a diverse ethnic composition of 55 tribes, with the dominant tribes, the Banyoro and Bagungu, constituting 60% of the population. The Alur, Jonam and Aringa form 5.3% while Baruli represent 4.5 % of the population. People from Rwanda, Kenya, Southern Sudan and the Democratic Republic of Congo have also settled in the district.

### 3.4.6.2 Administrative structures

All districts in Uganda have the same structure comprising the Resident District Commissioner who represents the President in the district, LC V Chairperson leading the local government political structure, and Chief Administrative Officer (CAO) who heads the civil service in the district. Authority at the sub-county level is shared between the Sub-County Chief and the Local Council-3 (LC-3) chairperson. Parishes are led the Parish Chief and the LC-2 chairperson while LC-1 Chairpersons lead villages. The accounting officer at the sub-county level is the Sub-county Chief, who is responsible for revenue collection and is directly answerable to the Chief Accounting Officer of the District. A district land officer oversees land administration issues including procedures of land acquisition and registration, valuation, surveying and settlement of disputes. The administrative structure thereof provides personnel that will be useful during implementation of the project, impact monitoring and compensation of affected people.

*Relation to the project: Population size reflects the number of people which the project would benefit or impact. Local leaders will support the project through information dissemination to the public. No "Indigenous People" are noted in the district.*

### 3.4.6.3 Land use and tenure

Masindi District covers an area of 7,443.0 sq. km of which 456 sq.km is open water; 197.5 sq. km is permanent/seasonal wet lands 6446 sq. km is area excluding open water and swamps. The District Perimeter is 378 kms. Prevalent land use along the road is a mix of subsistence farmland, settlement, forest reserves, wetlands and grassland. Due to hilly terrain, denser settlement and cultivated land is comparatively more in valleys than on hillsides. Low-lying areas are Bwambara, Bugangari and part of Ruhinda sub-counties. A summary of land uses in Masindi District is given in Table 2 below.

Table 2: Summary of land use in Masindi District

	Land use (sq km)
Broad leaved plantation	2.8
Conifers	1.1
Fully stocked forests	509.7
Degraded forests	19.8
Woodland	3,934.2
Bush land	267.3
Grassland	2,014.6
Swamp	130.4
Subsistence farmland	1,645.1
Large-scale farmland	108.9
Built up area	9.4
Open water	799.6
Open water (% of total district area)	8.46
Impediments (rocks)	0.1

The District has four forms of land tenure below:

- leasehold,
- lubinja- a customary tenure characterized by bonafide occupancy
- customary tenure characterized by bonafide occupancy and customary ownership, and
- freehold.

Leasehold tenure is earmarked for commercial interests such as Uganda Livestock Industries, Bunyoro Growers' Cooperative Union and Kinyara Sugar Works Ltd (Masindi District Local Government, 2009). The customary land tenure and bonafide occupancy under customary tenure are inter-related although, several problems still exist in the functioning of the customary tenure system. Kibanja owners (land occupants) were issued certificates of ownership until the 1950s when the process was stopped because the scheme of issuing certificates was abused and only prominent people got certificates and many poor people did not (Masindi District Council, 2003). On the other hand, customary landlords were given official land holding rights i.e. *Obengenze* similar to *Mailo* in Buganda. The officials (chiefs) of the Bunyoro kingdom got their remuneration in form of commissions. There is a strong preference for freehold land tenure among the indigenous communities and this has been included in the District's long-term plan (Masindi District Local Government, 2009). The three land tenure systems found in both Districts are: *Customary*, *Freehold* and *Leasehold*.

*Relation to the project: A resettlement action plan was prepared for the road project (Component 1) to ensure compensation and resettlement of any entities to be affected. Component 3 about vocational training will not affect land use/ ownership. In contrast, Component 2 may occasion land take or land use change and associated compensation/ resettlement should be handled as per RPF prepared for this project.*

#### **3.4.6.4 Employment, livelihoods and natural resource use**

Masindi district has diverse natural resources to support progressive socio-economic development. However, population growth has exerted pressure on natural resources. For instance, lack of soil conservation practices has led to soil erosion and land degradation. Overgrazing, charcoal burning, excessive tree harvesting, conversion of forested areas for agricultural production and bush fires have all also aggravated the district's environmental problem. Destruction of forests and wetlands for charcoal, timber and distillation of local gin ("*enguli*") have increased poverty, pressure on land and scarcity of pasture (Masindi District Local Government, 2009).

Specific unemployment figures per district are unavailable and such data is expected from upcoming August 2012 census but generally, 83 percent of young people aged 15 -24 years in Uganda are unemployed with limited job prospects<sup>5</sup>. This category of youths will be the most prevalent age group hired for menial road construction labour. It is expected that direct employment will be available during the road construction phase. In the post-construction or road use phase, there will not be significant direct employment on the road, except for contractors who would be responsible for periodic road maintenance. Secondary employment opportunities will arise from businesses and income generating opportunities created by the upgraded road.

*Relation to the project: A resettlement action plan was prepared for the road project (Component 1) to ensure compensation and resettlement of any entities to be affected. Component 3 about vocational training will not affect land use/ ownership. In contrast, Component 2 may cause land take or land use change and associated compensation/ resettlement should be handled as per RPF prepared for this project.*

#### **3.4.6.5 Health and sanitation**

Key healthcare challenges in the district include a high prevalence of infectious and communicable diseases and malnutrition, especially in children under the age of 5 years. Malaria is a major disease in the District, followed by coughs and intestinal worms. Other health issues include acute diarrhoea affecting 2.6 percent of the population, pneumonia, eye infections and genital infections (Masindi District Local Government, 2009).

<sup>5</sup> Children's Educational Fund: <http://cedf.ie/programmes/student-enterprise-initiative/2012-student-enterprise-innovation-africa/>

Relation to the project: Health and sanitation conditions will be most relevant for implementation of Component 1 expected to utilize a considerable number of road construction workers.

### 3.5 KIRYANDONGO DISTRICT

Kiryandongo District was created in 2010 after it was carved from Masindi District. Largely therefore, social and environmental characteristics of Kiryandongo are similar to those of Masindi District.

### 3.6 KYENJOJO DISTRICT

#### 3.6.1 Geographical Location

Kyenjojo is located in western Uganda and borders with Kibaale in the north, Mubende in the east, Kamwenge in the southeast and Kabarole in the west. The District has a total land area of 4,059.21 sq. km.

#### 3.6.2 Geology and Topography

The topography of the district is categorised as hilly, flat and valleys. Hills are common in Mwenge County and some parts of Kyaka. Flat lands are found mostly in Kyaka County, in the sub-county of Mpara that is bordering Katonga game reserve. Valleys are found in both counties; those in Mwenge are characterised by permanent swamps and rivers like Kahombo, Aswa, Mpanga and River Muzizi while those in Kyaka County are characterised by seasonal swamps. Geology of the road project route is predominantly undifferentiated Gneisses and Bunyoro series (Shales, arkoses and quartzites) along the stretch through Hoima District.

#### 3.6.3 Climate

Kyenjojo receives rainfall of between 750 mm to 1000 mm per annum.

#### 3.6.4 Hydrology

Kyenjojo district has no major watercourses save for some rivers and streams in wetlands like River Muzizi, River Mpanga, Aswa, Katonga and Kamurabara. These wetlands are used as sources of domestic and livestock water. In some communities, wetlands are also used for small-scale fishing for domestic consumption or roadside sale.

#### 3.6.5 Ecological Resources

Kyenjojo – Kagadi section is mainly characterized by homesteads on either side of the road with two sections of small and degraded remnant forest and two sections of degraded wetland. All sections of remnant forest have been reduced to tertiary level with few individual forest tree stands. Primates (Vervet monkey *Cercopithecus aethiops* and Black and White Colobus *Colobus guereza*) are present within 30 m of the road but it is important to note that these are highly mobile and range widely.

Wetlands are very sensitive habitats for both birds and mammals with Sitatunga *Tragelaphus spekii* highly characteristic among mammals in this habitat.

There were three main habitats in this section namely: Riverine forest and forest patches, Agricultural/settlements with ornamental plants and wetlands. Riverine forest habitats are dominated by *Polycia fulva*, *Maesopsis eminii*,

*Penisetum purpureum*, and *Phoenix reclinata*. Agricultural and settled system is interrupted by hedges and ornamental trees dominated by species belonging to genera: *Euphorbia*, *Pinus*, *Maesopsis*, *Senna* and *Acacia*. Wetland vegetation is largely represented by Muzizi wetland that marks the boundary of Kibaale and Kyenjojo Districts.

### **3.6.6 Socio-economic Baseline**

#### **a) Population**

According to Uganda's *Population and Housing Census (2002)*, the population of Kyenjojo was 377,171 of which 186,571 were males and 190,600 females. The population projection for 2009 put the population of Kyenjojo at 450,000 people with 222,400 males and 227,600 females. The district population growth rate is 3.7%, slightly higher than the national average of 3.3%. Mwenje sub-county has the highest population density of 115 people/ km<sup>2</sup> while Kyaka has only 63 people/ km<sup>2</sup>. Generally the majority of people in Kyenjojo live in rural areas.

#### **b) Ethnicity**

Ethnic group in Kyenjojo district are mainly Batoro, Banyoro and Bakiga.

#### **c) Employment, livelihoods and natural resource use**

Agriculture is the backbone of the economy in Kyenjojo District with the biggest crop being tea followed by timber. Other major crops grown are coffee, cassava, sweet potatoes, Irish potatoes. The district is endowed with good climate and fertile soils, which favour all-year farming. Despite the general growth of the national economy, a large percentage of Kyenjojo's population still lives below the poverty line and about 31 percent of the population cannot afford basic needs of life. Key major causes of poverty in the District include reliance on subsistence agriculture characterised by poor farming methods, high morbidity rate, high illiteracy rate, negative attitude towards work, tribal conflicts, gender imbalances in planning, ownership and control over critical resources, HIV and AIDS and poor infrastructure. It is however, important to note that among the poorest people in the District are women especially the widows mainly as a result of HIV/AIDS.

#### **d) Education**

Kyenjojo district has 407 primary schools of which more than 53% are privately owned and the rest are government aided.

#### **e) Health and sanitation**

Statistics were unavailable for some district and hence so regional data was used to provide overview of general health conditions in the project districts. Data from the 2006 Uganda Demographic and Health Survey show that the region in which Kyenjojo falls has worse health indicators than the national averages. The child mortality rate, HIV prevalence rate, and Total Fertility Rate (TFR) are higher in this region than the national averages. The situation is made worse by the low female literacy rate, low percentage of women (15-49 years) who completed primary school<sup>6</sup>.

Access to health services in the region is still low and there are problems of malnutrition and infant mortality generally attributed to lack of access to healthcare services. The district has 3 health sub-districts namely: Kyenjojo in Mwenje South constituency, Kyarushozi in Mwenje North constituency and Kyaka in Kyaka County.

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<sup>6</sup>USAID 2009: *Kyenjojo District Baseline/ Needs Assessment Report. STRIDES for Family Health Project report.*

### **a) Water supply**

Kyenjojo is not particularly endowed with vast surface water bodies; however, bore holes and shallow wells have been constructed to provide water in many communities. Ground water sources make up the largest source of water supply to several trading centres. Safe water coverage has risen from 42.8 to 53 percent according to the survey carried out by the water department. There are water mains near Katoosa trading centre that could be affected during road construction and contractors should be aware of this infrastructure. In case they are damaged then the contractor should reinstate them.

### **b) Energy**

Most households rely on fuel wood as a source of energy for cooking. Other sources include electricity, paraffin, solar energy and biogas (used by very few people). However, over 96 percent of people in the district live in rural areas without access to electricity, making fuel wood the major source of household energy. This statistics may change with a rural electrification project being implemented in the district. In urban centres, the majority of the population use charcoal for cooking energy. It is only 5 sub-counties out of the 13 that have got access to hydro-electric power grid and these include Kyenjojo Town Council, Katooke, Butiiti, Kyarusosi and Bugaaki. No impact on firewood and other fuel sources is anticipated since the road follows the existing alignment. However, there are hydro-electricity poles that are close to the road that will need to be relocated and this will interrupt power supply to those depending on it.

## **3.7 KIBAALE DISTRICT**

### **3.7.1 Geographical Orientation**

Kibaale District is located in mid-western Uganda and bordered by Lake Albert to the West, Hoima District to the North, Kiboga District to the East, and Mubende District to the South whereas in the South-West lies Kyenjojo, Kabarole and Bundibugyo Districts. The District is 215 km from Kampala and covers a total area of approximately 4,400 sq. km, while 319 sq. km are covered by water bodies.

### **3.7.2 Geology and Topography**

Kibaale is part of a central plateau with an altitudinal range of about 2000 – 4000 ft above sea level. The lowest area of the district is occupied by Lake Albert at 2040 ft above sea level while one of the highest points is Magoma hills (5100 ft above sea level) in Kasambya sub-county and Bugangaizi County.

### **3.7.3 Climate**

The District has a favourable climate. It enjoys a bi-modal rainfall type which varies between 1000 mm and 1500 mm per annum. Rainfall comes in two peaks, one from March to May and the second from September to December. However, the western part of the district, bordering the rift valley, is generally dry. The temperatures vary between 15° and 30°C with the highest temperatures recorded in the Rift Valley zone.

### **3.7.4 Hydrology**

Kibaale district is drained by three main rivers: Muzizi, Nkusi and Mpongo and a number of streams. Muzizi River flows along Buyaga – Mwenge county boundary with Kabarole district to the south. River Mpongo flows into River Kafu along the border of Buyaga and Bugahya Counties in Hoima District. The three rivers dominate the drainage system with almost all streams in the district draining into them in a dendritic pattern. Nkusi – Mpongo river system

empties into Lake Albert through a narrow gorge in the extreme north of Ndaiga Parish while Muzizi River first spreads out on the flat plains in the southern part of the parish before emptying into the same lake.

### 3.7.5 Ecological Resources

Kibaale district has 18 forest reserves out of which 15 are natural forests with an area of 25,503 hectares and 3 are plantation forests with an area of 37 hectares. Exploitation of central forest reserves (CFR) for wood fuel, charcoal and timber is prohibited but while these are illegal activities, several forest reserves along the road are encroached and degraded. Kagombe forest whose stretch near the road is about 1.43 km is dominated by *Acacia polyacantha*, *Antiaris toxicaria*, *Erythrina abyssinica*, *Maesopsis eminii*, *Funtumia africana*, *Markhamia lutea*, *Newtonia buchananii* and *Canarium schweinfurthii*. Towards Hoima Town seven stands of *Melicia excelsa* were encountered in a stretch of about 20 km.

### 3.7.6 Socio-economic Baseline

The population of Kibaale was 405,882 according to the 2002 census results, which was 1.6 percent of the national population. The number of males was 200,131 (49%) and the females were 205,751 (51%). The population grew at an annual growth rate of 5.2 percent which was much higher than the national growth rate of 3.3 percent. The population density increased from 20 persons per sq. km in 1969 to 98 persons per sq. km in 2002. According to the 2002 census, the sub-counties with the highest population density (122 – 161 persons per sq. km) were Mabaale, Kyanaisoke, Muhorro, Bwikira and Kibaale Town Council.

#### a) Ethnicity

The majority of the people in Kibaale are Banyoro(48.1%); followed by Bakiga (31.4%); Bafumbira (8%); Bakhonzo (2.9%); Banyankole (2.3%); Batoro (2.1%); and other Ugandans accounting for (5.2%).

#### b) Land tenure and use

Land is a contentious issue in Kibaale as well as being a very important one to Kibaale and the whole of Uganda. Land in Kibaale district is mainly under *mailo* tenure and occupied under customary *kibanja* rights. The Land Act gives recognition to all existing forms of tenure and goes some way towards clarifying the Rights/duties relationship of landlords and tenants on *mailo* land.

### 5.3.6.7 Infrastructure

- a) **Roads:** The district total feeder road network is 589.3 km; access road network 1,623 km out of which 675 km are rehabilitated. The status of the roads in the District is generally fair.
- b) **Water and sanitation:** The District is well endowed with natural water sources like springs and shallow wells. Safe water supply is presently at 56 percent; safe latrine usage and presence of sanitation facilities is 64 percent, safe and adequate latrine coverage at primary schools is 54 percent.
- c) **Energy:** Most households (96%) in Kibaale use firewood and charcoal for cooking. Sources of energy for lighting and cooking are indicated in Tables 5.15 and 5.16.

## 4 PREPARATION AND OBJECTIVES OF THE ESMF

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### 4.1 Objective of this ESMF

Key objectives of the ESMF are to:

- Provide a framework for integration of social and environmental aspects at all stages of project planning, design, execution and operation.
- Enhance positive social and environmental impacts of the project and avoid/minimize or manages any potential adverse impacts.
- To facilitate integration of environment and social considerations into urban development decisions.
- Identify entry points for environment and social action
- Making environment information available to stakeholders and the public to foster consensus and project ownership or collective responsibility for socio-environment actions.

In line with environmental requirements of Government of Uganda (GoU) and the World Bank, the environmental and social safeguards policies shall be applied to the project components. The ESMF guidance for identifying potential environmental and social impacts during project planning, design and implementation and outlines management instruments required to effectively address them. Appropriate institutional arrangements towards implementing the ESMF and capacity building efforts required have also been provided in the ESMF. Any aspects related to compensation and resettlement are provided for under a separate resettlement policy framework (RPF).

By promoting sustainable development, local governments including urban councils will become more competitive, efficient and attractive to investors.

### 4.2 Methodology used to prepare the ESMF

The ESMF was prepared based on the following methodology

- a) Document review
- b) Visit to selected projects sites
- c) Consultations with key stakeholders and beneficiary communities

Key stakeholders for ARSDP include:

- MoFPED
- MLHUD
- UNRA
- MoLG
- NEMA
- Hoima District Local Government
- Buliisa District Local Government
- Buliisa District
- Buliisa Town Council
- UPIK- Kigumba
- UTC Kichwamba
- Ministry of Energy & Mineral Development (MEMD)

## 5 POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

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In this section the policies, legal and institutional frameworks for environmental management in Uganda are discussed.

### 5.1 Policy Framework

#### 5.1.1 Uganda's Vision 2040

This Vision Framework provides plans and strategies to operationalize the Ugandan vision which is "A transformed Ugandan society from a peasant to a modern and prosperous country within 30 years". It aims at transforming Uganda from a predominantly peasant and low income country to a competitive upper middle income country with per capita income of about USD9, 500. Over this period, average real GDP growth rate will be over 8.2 per cent per annum translating into total GDP of about US \$580.5bn with a projected population of 61.3 million. This will match the level of development observed in upper middle income (UMI) countries such as Malaysia, Mauritius, Hungary and Chile. Table below presents development status and desired targets.

To attain this level of per capita income the country will exploit its enormous and novelty opportunities including; oil and gas, tourism, minerals, ICT business, abundant youthful labor force, strategic geographical location, fresh water resources, industries and agriculture. These opportunities will be harnessed through strengthening fundamentals including; physical infrastructure (transport, ICT and energy), Science, Technology, Engineering and Innovation (STEI); and globally competitive human resource.

The main vision strategies include:

- a) Review the architecture of government service delivery system to act as a unit, harness synergies and deliver public services efficiently and effectively.
- b) Government will invest directly in strategic areas to stimulate the economy and facilitate private sector growth.
- c) Pursue an urbanization policy that will bring about better urban systems that enhance productivity, liveability and sustainability.
- d) Government will pursue policies aimed at leapfrogging in the areas of innovation, technology and science, engineering, human resource development, public sector management, and private sector development.
- e) Develop and implement a National Innovation System that will help in initiating, importing, modifying and diffusing new technologies.
- f) Government will front-load investments in infrastructure targeting areas of maximal opportunities with focus on oil, energy, transport and ICT.
- g) Accelerate industrialization through upgrading and diversification to effectively harness the local resources, off shoring industries and developing industrial clusters along the value chain.
- h) To develop and nurture a national value system by actualizing a national service programme to change mind sets and promote patriotism and national identity.
- i) The vision will be implemented in accordance with existing and future agreements, standards and protocols within the framework of regional integration.

All components planned in this project are in line with aspirations of Vision 2040.

### 5.1.2 Uganda's National Environmental Action Plan (NEAP)

Uganda's National Environmental Action Plan seeks to promote and implement sound environmental policy. The NEAP represents the culmination of a series of initiatives and activities coordinated by the NEMA. It is the master plan for the environment in Uganda and contains a National Environment Policy, Framework Environmental Legislation and Environmental Strategy. The NEAP consists of Sectoral Plans for the medium and long term intended to lead to sustainable development in the country.

The NEAP has been innovative and included the following steps:

- The development of a National Consensus on the NEAP,
- The setting up of the National Environment Management Council,
- The establishment of the NEMA,
- The enactment of the legislation of the National Environment Act,
- The establishment of Working Groups to address thematic environmental issues.

The successful coordination and implementation of all the measures in the NEAP calls for national and international consensus and cooperation. The other environmental strategies are:

- The National Strategy and action Plan on Biodiversity Conservation,
- The National Strategies on Protection of Wetlands and Water Bodies,
- The National Strategy on Climate Change,
- The National Action Plan to combat Desertification.

NEAP puts emphasis on environmental management, pollution and nuisances, and the necessity to safeguard the well-being of the population. These are the aspects this ESMF seeks to incorporate in ARSDP project. All components planned in this project will have environmental considerations related to NEPA.

### 5.1.3 The National Environment Management Policy

The National Environment Management Policy for Uganda (1994) is the cornerstone of the country's commitment to social and economic development that is environmentally sustainable and brings the benefits of a better life to all. The National Environment Management Policy gives the overall policy framework, which calls for sustainable development that maintains and enhances environmental quality and resources productivity to meet human needs of the present generation without compromising ability of future generations to meet their own needs. The framework points out cross-sectoral guiding principles and strategies to achieve sustainable socio-economic development. The policy sets a guiding principle that Environmental Impact Assessment should be required for any activities which cause significant impact on the environment. Other relevant policies to be considered in the implementation of ARSDP include the Land Policy, the National Wetlands Conservation and Management Policy, the National Forestry Policy, the Water Policy, the National Health Policy, the National Forestry Policy, and the National Gender Policy.

All components planned in this project will have environmental considerations related to this policy.

### 5.1.4 National Development Plan 2010/11 – 2014/15

The education section is included in the National Development Plan in 'increasing access to quality social services' which is one of the eight priority objectives identified in the plan. In 1996, the Universal Primary Education (UPE) was

introduced and primary education became free the following year (1997) and compulsory in 2008. In April, 2010, the five-year National Development Plan (NDP) (2010/11 – 2014/15) was announced to replace the PEAP. While having emphasized poverty reduction as in the case of the PEAPs, this NDP places more emphasis on economic growth and upholding economic growth as the main pillar for national development. All ARSDP components planned will be in line with development aspirations proposed in the NDP.

### 5.1.5 The National Water Policy, 1999

The objective of the policy is to provide guidance on development and management of the water resources of Uganda in an integrated and sustainable manner, so as to secure and provide water of adequate quantity and quality for all social and economic needs, with full participation of all stakeholders and mindful of the needs of future generations. Water use by the camp shall be governed by this policy. This policy provides guidance on development and management of the water resources of Uganda in an integrated and sustainable manner so as to secure and provide water of adequate quantity and quality for all social and economic needs with full participation of all stakeholders and mindful of the needs of future generations.

This policy will apply to Component 1 and 2 of ARSDP.

### 5.1.6 National Land Policy, 2013

The Policy calls for adoption of an open policy on information to the public and seek consent of communities and local governments concerning prospecting and mining of these resources;

(iii) Allow to the extent possible, co-existence of individuals and communities owning land in areas where petroleum and minerals are discovered with extraction activity;

(iv) Protect the land rights and land resources of individuals and communities owning land in areas where mineral and petroleum deposits exist or are discovered;

(vi) Guarantee the right to the sharing of benefits by land owning communities and recognize the stake of cultural institutions over ancestral lands with minerals and petroleum deposits.

This policy will apply to Components 1 and 2 of ARSDP which will need stone aggregate.

**Note:** The National Land Use Policy will also be essential to this project.

## 5.2 Legal Framework

### 5.2.1 The Constitution of the Republic of Uganda

This is the supreme law of the land. The constitution provides for, inter alia, matters pertaining to land, natural resources (such as swamps, rivers and lakes) and the environment. Objective XXVII of the constitution declares that:

- a) Utilization of natural resources shall be managed in such a way as to meet the development and environmental needs of the present and future generations of Uganda, particularly taking all measures to prevent or minimize damage and destruction to land, air, and water resources resulting from pollution or any other kind of natural resource degradation.
- b) The state shall promote sustainable development and public awareness of the need to manage natural resources and to ensure that the utilization of the natural resources of Uganda shall be managed in such a way as to meet the needs of present and future generations.

Under Article 237 (2) of the Constitution, the Government holds in trust for the people and is required to protect natural lakes, rivers, wetlands, forest reserves, game reserves, national parks and any land to be reserved for ecological or tourism purposes for the common good of all citizens. In this regard, it is in the interest of the Government of Uganda that all socio-economic development activities protect and preserve the environment from abuse, pollution and degradation, thus sustainable development.

### 5.2.2 National Environment Act CAP 153

The National Environment Act CAP 153 defines programs in the third schedule for which an EIA is a requirement. It also provides for guidelines and regulations for undertaking an EIA and emphasizes public participation in the conduct of an EIA. Sections 19, 20 and 21 of the Act lay out the EIA process, and Sections 22 and 23 make it a requirement to undertake environmental audits and monitoring of on-going activities or projects under implementation. The National Environment Act also established the National Environment Management Authority (NEMA), which is charged, inter alia, with the responsibility to oversee, coordinate, supervise and operationalize the EIA process in Uganda. Over the years, NEMA has issued several guidelines and regulations to ensure sustainable management of the environment.

### 5.2.3 Other National policies, laws and regulations

Policies, laws and regulations listed below will be important during implementation of ARSDP. It is important that entities implementing this ESMF and various project activities review these policies, laws, regulations and guidelines to investigate specific clauses applicable to given activities and ensure conformance to regulatory requirements on social and environmental compliance.

Table 3: Applicable policies, laws and regulations

<b>Policies:</b>	<b>Relevancy</b>
<i>The National Environment Management Policy, 1994</i>	This policy relates to general environmental protection and relevant to this project due to potential impacts that could arise from implementation of especially components 1 and 2.
<i>National Development Plan (NDP), 2010/11-2014/15</i>	All proposed project components are contiguous with national socio-economic development objectives as inscribed in the NDP.
<i>National Water Policy, 1999</i>	A key objective of this policy is to guide development and management of water resources in Uganda following an integrated and sustainability concept so as to secure and provide water of adequate quantity and quality for all social and economic needs. This policy, to especially apply to Component 1 and 2, seeks to ensure protection of and equitable access to water resources.
<i>Uganda Forestry Policy, 2001</i>	This policy seeks to protect national forest resources and will apply to component 1 that may indirectly affect forests through which the road to be upgraded passes.
<i>Wetlands Policy, 1995</i>	This policy will apply to Components 1 and 2. It aims to preserve wetland cover and resources for both social and environmental benefit of Ugandan people.
<i>National Gender Policy, 1997</i>	The overall objective of the national gender policy (1997) is to mainstream gender in national development process to improve social, legal, political, economic and cultural conditions of citizens, especially of women. The gender policy will be essential in guiding gender equity throughout the project cycle from construction (labour force composition/ relations) to use of developed infrastructure.
<i>Uganda's policies on vocational education</i>	These will apply to Component 3 of the project.
<b>Regulations:</b>	
<i>The National Environment Impact Assessment Regulations S.I. No. 13/1998</i>	These regulations will guide EIA process and activities where any components of the project require undertaking socio-environmental impact assessment.
<i>The Water Resources Regulations 1998</i>	All project activities must comply with requirements of these regulations not only in regard to pollution control but also equitable access to water and permit obligations.

<i>The National Environment (Wetlands, River Banks and Lake Shores Management) Regulations, 2000</i>	These regulations will apply to Components 1 and 2 which are likely to be associated with works on or related to watercourses (wetlands and rivers).
<i>The National Environment (Noise Standard and Control) Regulations (2002)</i>	Implementation of all three components of ARSDP may need to control noise to comply with regulatory requirements.
<i>The National Environment (Waste Management) Regulations 1999</i>	All project components will require proper management of waster either at construction stage or operation stages, hence relevancy of these regulations.
<i>The National Environment (Standards for Discharge of effluent into Water or on Land) Regulations, 1999</i>	Components 1 and 2 may have activities that discharge effluent on land or water and this will be regulated by these regulations.
<i>The National Environment (Audit) Regulations, 2006</i>	All activities that undertake environmental and social impact assessment should conduct an audit within 24 - 36 months after commencement of implementation.
<b>Laws:</b>	
<i>The National Environment Act, Cap 153</i>	This Act provides for various strategies and tools for environment management, which also includes the ESIA (Section 19) for projects likely to have significant environmental impacts. The Act also mandates NEMA with responsibility for environmental management in Uganda.
<i>The Water Act Cap 152</i>	This law will govern water use by any or all proposed project components.
<i>The Land Act, 1998</i>	Component 1 and 2 will entail land take and landuse change. These aspects including compensation and resettlement are governed by the Land Act 1998.
<i>The Public Health Act, Cap 281</i>	Project implementation may occasion public health risks and in this lies relevance of this law, which will apply to all Components 1, 2 and 3.
<i>Employment Act, 2006</i>	Labour conditions and relations when implementing the proposed project are governed by the Employment Act, 2006.
<i>Occupational Health and Safety (OHS) Act, 2006</i>	Safety of works on project sites will be essential to avoid accidents or fatalities due to work-related incidents and this is governed by this Act.
<i>Local Governments Act, Cap 243</i>	This Act gives local governments jurisdictional authority over areas they control. All districts in which ARSDP will be implemented will have full administrative policy and legal control over project activities.
<i>The Physical Planning Act, 2010</i>	No project activity will be legitimate when its design or implementation does not conform to provisions of this Act. This Act will particularly apply to Component 1 and 2.
<i>Land (Amendment) Act, 2010</i>	Amendments in this Act function in tandem with the Land Act, 1998 and will apply to Components 1 and 2 of proposed ARSDP.

#### 5.2.4 International Conventions

Uganda is signatory to several international conventions and agreements amongst which the most important are the following:

Table 4: International conventions to which Uganda is a signatory

<b>Convention</b>	<b>Objective</b>
Convention on wetlands of International Importance especially as Water Fowl Habitat- Ramsar Convention 1971	To stop encroachment on and loss of wetland now and in the future, recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific and recreational values.
Convention Concerning the Protection of World and Cultural Heritage 1972	To establish an effective system of collective protection of the cultural and natural heritage of outstanding universal values.
Convention on the International Trade in Endangered Species of Wild Flora and Fauna – CITES 1973	To protect certain endangered species from over exploitation by means of a system of import/ export permits.
Convention on the conservation of migratory species of Wild animals	To protect those species of wild animals that migrate across or outside national boundaries

Convention	Objective
1979	
Vienna Convention for the protection of the Ozone Layer 1985	To protect human health and the environment against adverse effects resulting from modification of the ozone layer.
Montreal Protocol on Substances that deplete the Ozone layer 1987	To protect the ozone layer by taking precautionary measures to control global emissions of substances that depletes it.
Basel Convention on the Trans-boundary Movement of Hazardous Wastes and their disposal	To set up obligations for the state parties with a view to:  -Reducing trans-boundary movements of waste subject to the Basel Convention to a minimum consistent to the environmentally sound and different effects of such wastes  -Reducing trans boundary movements of waste subject to minimizing the amount and toxicity of hazardous wastes generated and ensuring their environmentally sound management
Convention on Biological Diversity- CBD 1992	To promote diversity and sustainable use Encourage equitable sharing of benefits arising out of the utilization of genetic resources
United Nations Framework Convention on Climate Change UNFCCC – 1992	To regulate the levels of greenhouse gases concentration in the atmosphere so as to avoid the occurrence of climate change on a level that would impede sustainable economic development, or compromise initiative in food production.
United Nations Convention to combat Desertification –UNCCD 1994	To combat desertification and mitigate the effects of drought in countries experiencing serious drought and or desertification.
Technical Cooperation Committees for the promotion of resources Development and Environmental Protection of the Nile Basin 1992	Promote Basin wide cooperation for the integrated and just development, conservation and use of the Nile Basin water and to determine the equitable entitlement of each state of the Nile Basin
Cooperation enforcement Operations Directed at illegal trade in Wild Fauna and Flora (the Lusaka Agreement) 1996	Directed at controlling illegal trade in Wildlife and Wildlife products

### 5.3 The EIA Process in Uganda

Where given activities of implementing any of the three ARSDP components require a full EIA, process to follow is presented in figure below:

- Project brief preparation (for projects that may not require full/ detained EIA);
- Screening;
- Detailed environmental impact study;
- Decision making by NEMA (and lead agencies)

These are discussed in sections below and illustrated in Figure 5.

It is noted that Component 1 was already subjected to a full EIA process (see findings summary in Box 8.1) since according to the National Environment Act, it is *Third Schedule* project for which EIA is mandatory.

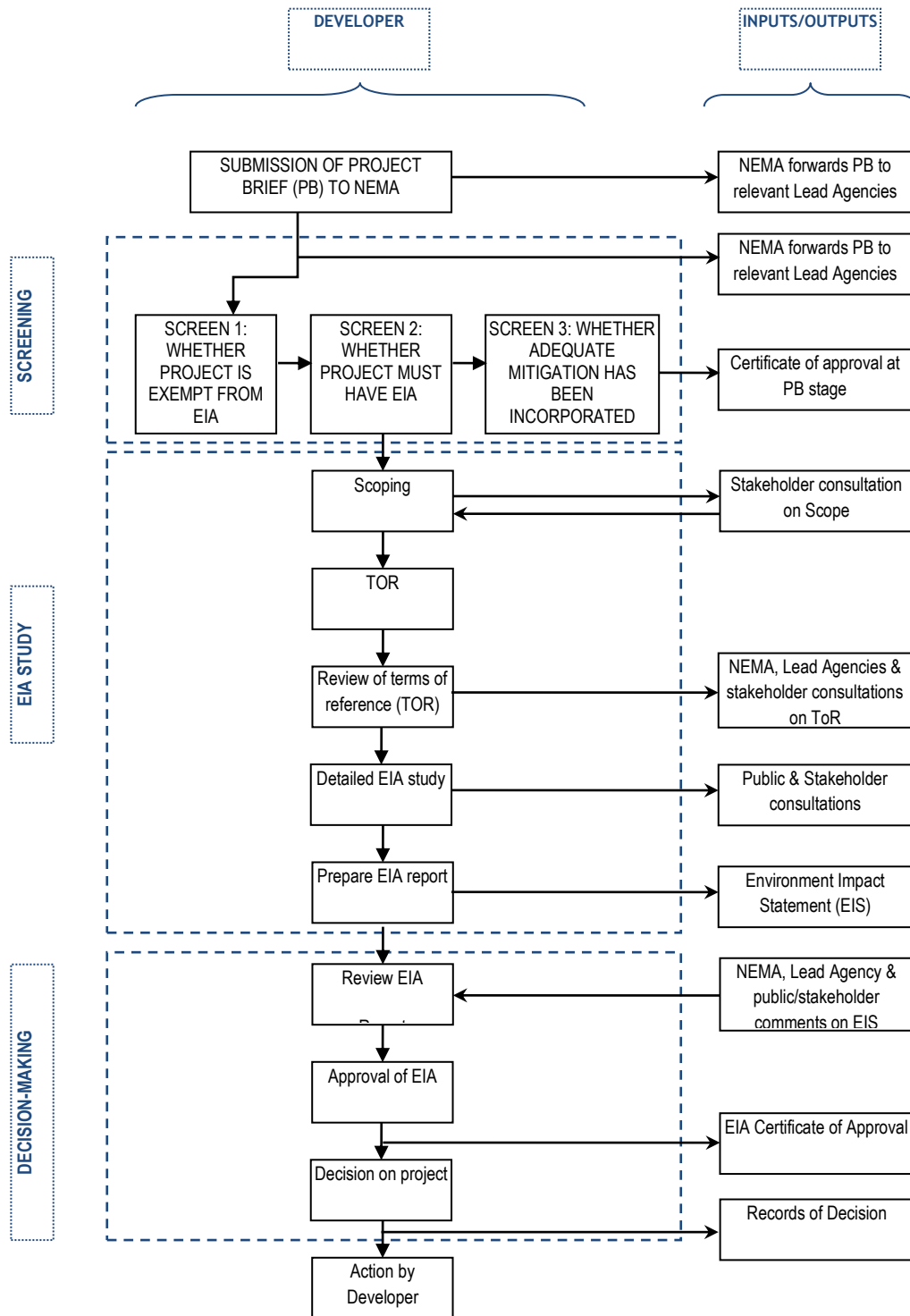


Figure 5: Summary of EIA process in Uganda

### 5.3.1 Preparation of a Project Brief

A concise project brief shall be prepared by the developer for submission to NEMA. This shall provide essential project information to guide NEMA on the screening criteria to which the proposed project should be subjected. The report shall include the following key information:

- a) Contact details of developer;
- b) Characteristics of project;
- c) Project description;
- d) Reasons for project;
- e) Background to the project;
- f) Project site;
- g) Baseline data;
- h) Physical form of the development;
- i) Construction practices;
- j) Operations;
- k) Preliminary analysis of alternatives;
- l) Other large projects within the area of influence of the proposed project;
- m) Characteristics of the potential impacts;
- n) Nature, extent and magnitude of impacts;
- o) Probability of impacts;
- p) Duration frequency and reversibility of impacts;
- q) Mitigations measures proposed; and
- r) Trans-boundary nature of the impacts.

Responsibilities: Project briefs should be prepared by project proponents (colleges supported and local governments).

### 5.3.2 Environmental and Social Screening

The objective of screening is to determine the extent to which a project is likely to affect the environment and therefore, be able to determine the level of assessment required. Screening is generally guided by the following criteria largely based on the contents of the Project Brief given in the previous Sub-section:

- Size (land area, capital investment) or location of project if it is in a fragile ecosystem e.g. wetland, forest, at watercourses
- Type of project (if listed in Schedule 3 of the National Environment Act)
- Potential socio-economic and biophysical impacts compared against set thresholds and standards, and
- Provision of an Environmental Management Plan (EMP) to address any identified impacts.

Screening is in line with National Environment Act and World Bank Environment Assessment Operational Guidelines that require screening and development of an ESMP which is approved through the local government system.

There are three screening stages:

- Screen I: The first screening decides on the projects that do not require an EIA.
- Screen II: Projects that require mandatory EIA are directly subjected to a detailed EIS.
- Screen III: Projects that do not fall under any of the above two categories do not require a mandatory EIA though they are associated with some minor, site specific, and easily predictable impacts. If adequate mitigation measures are already prescribed for a project in the Project Brief, it can be

approved directly, and if not, then an Environmental Impact Review (EIR) is required. Depending on the results of the EIR, the project can be approved or subjected to a detailed EIS.

If a decision is made at the screening stage to exempt a project, or to approve its environmental aspects on the basis of identified adequate mitigation measures, such a decision shall be contained in a Certificate of Approval of the EIA issued by NEMA.

*Responsibilities:* Environmental screening will be undertaken by environmental focal persons or ministry environmental officers in respective ministries.

### **5.3.3 Environmental Impact Study**

According to the EIA Regulations 1998, EIS refers to the detailed study conducted to determine the possible environmental impacts of a proposed project and measures to mitigate their effects. The EIS process contains the following key stages:

- Scoping and ToR;
- Preparation of the EIS;
- Review of EIS and Decision on project; and
- Environmental Monitoring.

*Responsibilities:* EIA study will be undertaken by consultants hired by respective project proponents. Environmental and social impact assessment reports will be reviewed by NEMA together with local government environmental officers.

### **5.3.4 Scoping and ToR**

Scoping is the initial step in the EIS. Its purpose is to determine the scope of work to be undertaken in assessing the environmental impacts of the proposed project. It identifies the critical environmental impacts of the project for which in-depth studies are required, and elimination of the insignificant ones. The scoping exercise should involve all the project stakeholders so that consensus is reached on what to include or exclude from the scope of work. It is also at this stage that project alternatives are identified and taken into consideration. The contents of the scoping report are the same as the project brief however more detail is likely to be needed. This may involve some preliminary data collection and field work.

The Developer takes the responsibility for scoping and prepares the scoping report after consultation with NEMA, Lead Agencies and other stakeholders. The developer with assistance from technical consultants will draw up the ToR for the EIS and submit a copy to NEMA that shall in turn be forwarded to Lead Agencies for comments, in this case including the District Local Government or District Environment Officer.

### **5.3.5 Preparation of the EIS**

In preparing an EIS, relevant information is collected on issues of real significance and sensitivity. These are then analyzed, mitigation measures developed for the adverse impacts and compensatory measures recommended for unmitigated environmental impacts. Measures aimed at enhancing beneficial or positive impacts are also given. An EIS documents the findings and is submitted to NEMA by the developer.

### 5.3.6 Review of EIS and Decision on Project

The Developer is required to submit ten (10) copies of the EIS to NEMA for review and approval. NEMA then forwards a copy to the Lead Agencies for comments. NEMA in consultation with the Lead Agencies (in this case including the District Local Governments) shall review the contents of the EIS, paying particular attention to the identified environmental impacts and their mitigation measures, as well as the level of consultation and involvement of the affected stakeholders in the EIS process. In this review, the level to which the ToR set out for the study is addressed shall be considered. In making a decision about the adequacy of the EIS, NEMA shall take into account the comments and observations made by the Lead Agencies, other stakeholders and the general public. NEMA may grant permission for the project with or without conditions, or refuse permission. If the project is approved, the Developer will be issued a Certificate of Approval.

### 5.3.7 Environmental Monitoring and Management Plan

Monitoring is the continuous and systematic collection of data in order to assess whether the environmental objectives of the project have been achieved. Good practice demands that procedures for monitoring the environmental performance of proposed projects are incorporated in the EIS.

The purpose of monitoring is to:

- Provide information that the predicted impacts from a project are within the engineering and environmental acceptable limits;
- Provide an early warning information for unacceptable environmental conditions;
- Ensure that the mitigation measures proposed in the environmental management plans are implemented satisfactorily; and
- Assist in identifying additional mitigation efforts needed or where alteration to the adopted management approach may be required.

To assist in implementation of identified mitigation and monitoring strategies, an environmental monitoring plan will be developed. It will describe the various environmental management strategies and programmes to be implemented. It will also identify the management roles and responsibilities for ensuring that monitoring is undertaken, results are analyzed and any necessary amendments to practices are identified and implemented in a timely manner.

The monitoring plan shall provide for monitoring of both project implementation and environmental quality. It shall contain a schedule for inspecting and reporting upon the implementation of the project and associated mitigation measures identified in the EIS. The monitoring plan shall also identify the key indicators of environmental impact. Further, the plan shall provide a schedule for monitoring each indicator and for reporting the monitoring results to NEMA or the Local Authority.

The data collected during monitoring is analyzed with the aim of:

- Assessing any changes in baseline conditions;
- Assessing whether recommended mitigation measures have been successfully implemented;
- Determining reasons for unsuccessful mitigation;
- Developing and recommending alternative mitigation measures or plans to replace unsatisfactory ones; and
- Identifying and explaining trends in environment improvement or degradation.

### 5.3.8 Public Consultation

The environmental impacts or effects of a project will often differ depending on the area in which it is located. Such impacts may directly or indirectly affect different categories of social groups, agencies, communities and individuals. These are collectively referred to as project stakeholders or the public. It is crucial that during the EIA process, appropriate mechanisms for ensuring the fullest participation and involvement of the public are taken by the developer in order to minimize social and environmental impacts and enhance stakeholder acceptance. In the case of ARSDP prior to its implementation, meetings will be held at the Local Council 3 level involving leaders, Technical Personnel, and Communities.

NEMA prepared EIA Public Hearing Guidelines (1999) providing methodological guidelines on public consultation. An effective consultation process should generally ensure that:

- The public has a clear understanding of the proposed project; and
- Feedback mechanisms are clearly laid out and known by parties involved.

Different stages of the EIA process require different levels of public consultation and involvement. The key stages are:

- Public consultation before the commissioning of the EIS;
- Public consultation during the EIS; and
- Public consultation during EIS review.

Consultation can be before, during the EIA study or during its review as outlined below:

#### a) Consultation before the EIA

On submission of the project brief to NEMA, it might be decided that views of the public on the project are sought. NEMA is obliged to publish the developer's notification and other relevant documents in a public notice within 4 weeks from the date of submission of the project brief and/or notice of intent to develop.

It is important therefore, that a plan for stakeholder involvement is prepared before the EIS begins. Such a plan should consider:

- The stakeholders to be involved;
- Matching of stakeholders with approaches and techniques of involvement;
- Traditional authority structures and political decision-making processes;
- approaches and techniques for stakeholder involvement;
- Mechanisms to collect, synthesize, analyze and, most importantly, present the results
- To the EIS team and key decision-makers;
- Measures to ensure timely and adequate feedback to the stakeholders;
- Budgetary / time opportunities and constraints; and
- Public Consultations during the EIS.

#### b) Public consultation during the EIS

During the EIS, the study team should endeavour to consult the public on environmental concerns and any other issues pertaining to the project. Though consultations are very critical at the scoping stage, ideally, it should be an on-going activity throughout the study.

**c) Public consultation during the EIS review**

During the EIS review, the public is given additional opportunity for ensuring that their views and concerns have been adequately addressed in the EIS. Any earlier omissions or oversight about the project effects can be raised at this stage. To achieve this objective, the EIS and related documents become public after submission to NEMA. An official review appointment will be announced, where the reviewing authority has to answer questions and remarks from the public. These questions have to be handed in writing prior to the meeting

## 6 OVERVIEW OF THE WORLD BANK'S SAFEGUARD POLICIES

The World Bank's ten safeguard policies are designed to help ensure that programs proposed for Bank financing are environmentally and socially sustainable, and thus improve decision-making. These operational policies are outlined below and ones to be triggered by the project indicated:

Table 5: World Bank policies showing their trigger status by the project

	Safeguard Policies	Triggered?		Reason
		Yes	No	
1	OP 4.01 Environmental Assessment	x		OP 4.01 is triggered because the project will entail civil works (e.g. construction of buildings, roads, bridges, etc) with associated environmental and social impacts likely to be realized during implementation. Component 1 (road upgrade) has had a full ESIA prepared and cleared by the Bank and in the process of being disclosed both in-country and at infoshop. For Components 2 & 3 (urban planning/ infrastructure development) an ESMF has been prepared by the GoU to guide implementation of environmental and social aspects of the project. Upon confirmation of the project locations and salient features, specific ESIA's and/or ESMPs will be developed to guide site implementation of mitigation measures. All the safeguards studies shall be disclosed both in-country and at the WB's infoshop.
2	OP 4.04 Natural Habitats	x		OP 4.04: Triggered because the Albertine Rift area includes a number of protected areas and other natural habitats (large National Parks, Forest Reserves, wetlands, Lake Albert). The activities located within the Rift Valley may potentially affect these natural habitats. The ESMF and activity-specific ESIA's will be used to identify and address potential impacts on natural habitats. For potential impacts which cannot be avoided, adequate mitigation measures will be included in the ESMPs. This has already been done for Component 1 ESIA. However, during compilation of the ESMF, Components 2 & 3 are not anticipated to affect any natural habitats. In the event of any impact, the screening process provided in the ESMF will guide identification of any likely impacts and their subsequent mitigation.
3	OP 4.09 Pest Management		x	The project will not involve use of pesticides in any of the three components.
4	OP 4.11 Physical Cultural Resources	x		OP 4.11 is triggered because project investments will involve civil works and may potentially affect known physical cultural

				resources in the project area. A chance finds procedure has been developed as part of the ESMF to guide management of any PCRs that may be encountered during project implementation. For Component 1, known PCRs were identified during the compilation of the ESIA and their conservation measures recommended.
5	OP 4.12 Involuntary Resettlement	x		OP 4.12 is triggered because the project investments may support interventions that could entail land take or limiting access to land and other resources. A resettlement policy framework has been prepared to address potential involuntary resettlement and compensation issues. In addition, a resettlement action plan has been prepared for Component 1.
6	OP 4.10 Indigenous People		x	No components will be implemented in areas with Indigenous Peoples.
7	OP 4.36 Forests	x		OP 4.36 is triggered because the road improvements may have impacts on the adjacent forest reserves, particularly through induced impacts due to improved access. ESMPs will include measures to address such impacts as indicated in the project ESMF. Component 1 ESIA/ ESMP has included measures for management of likely impacts on forests.
8	OP 4.37 Safety of Dams		x	The project is not related to development of dams.
9	OP 7.50 Projects on International Waterways		x	This does not apply to any of ARSDP components.
10	OP 7.60 Projects in Disputed Areas.		x	ARSDP will not be implemented in disputed areas.

All above Operational Policies are discussed in Annex 6.

## 7 KEY ISSUES FROM STAKEHOLDER CONSULTATION

Key views of stakeholders consulted are presented in table below.

Table 6: Key views from stakeholders

<b>Environment</b>	<p>The project design should integrate environmental checks in development of infrastructural projects such as:</p> <ul style="list-style-type: none"> <li>▪ Environment &amp; social screening of projects using the Environment &amp; Social Screening form</li> <li>▪ Ensure Environmental &amp; Social mitigations</li> <li>▪ Develop preparation of environment &amp; Social management plans</li> <li>▪ The Plans Resettlement Policy framework</li> <li>▪ Evaluation of project impacts and preparation of entitlement matrix</li> </ul>
<b>Mechanisms for improved future management of similar projects</b>	<p>Key challenges currently evident include:</p> <ul style="list-style-type: none"> <li>▪ Lack of coordination in handling Oil &amp; Gas activities, there is need to establish a coordination office that can effectively handle and advise on the Oil &amp; Gas issues in the project districts.</li> <li>▪ Project districts have a number of challenges to handle the projects including lack of budgets for monitoring, vehicles, and equipment.</li> </ul>
<b>Land Acquisition &amp; Grievances Experienced in the District</b>	<p>Buliisa District has not experienced any land acquisition issues since the district has not carried out major project involving land acquisition. However in the past some grievances on land acquisition for Oil exploration activities have been experienced and managed/resolved by both local and central government. This experience can be utilized in ARSDP projects.</p>
<b>Community Benefits</b>	<p>Communities expressed need for project to hire local labour to maximize socio-economic benefit during implementation stages.</p>

A detailed record of stakeholder consultation is presented in Annex 6.

## 8 ENVIRONMENTAL AND SOCIAL IMPACTS OF ARSDP

Potential impacts (beneficial and negative) of proposed ARSDP components are broadly discussed in sections below recognising that actual impacts and their significance (see Annex 12) may be site-specific and dependent on type of infrastructure under development.

Prediction and forestalling impacts of the proposed project should start with the design and procurement stages as outlined below. Controls can also be instituted during implementation by the contractor to ensure compliance.

- **Design stage:**

Reason: Some socio-environmental pacts can be prevented by nature of facility design. For example provision of ramp access for disabled people on buildings.

- **Procurement stage:**

Reason: It should be a contractual obligation for the contract to fulfill minimum social-environmental requirements such as having in place an HIV Policy, OHS Policy, Gender Policy, etc and implement social-environmental controls prescribed by this ESMF, subsequent EIA or Project Briefs. These are only possible when these requirements are incorporated in bidding documents at tendering stage or in contractors of successful bidders.

- **Construction/ implementation stage (by contractor):**

Contractors have obligation to implement environmental mitigation actions specified in the ESMF or specific project briefs and ESIA's. It is essential that this requirement is made mandatory in contractors' legal contracts and the following controls instituted:

- a) It should be a contractual requirement that Contractors must have a Socio-Environmental Officer to supervise compliance with socio-environmental requirements.
- b) The Supervising consultant should also have a Socio-Environmental Officer.
- c) The Supervising Consultant should not approval contractor's payment certificates when there are outstanding socio-environmental obligations that are not yet fulfilled or impacts fully remedied.

It is noted that World Bank completed review of Environmental and Social Impact Assessment (ESIA) for Component 1 and it was subsequently updated. The disclosed ESIA discusses potential environmental and social impacts of the road project and these have not been discussed in this ESMF but a brief outline of status of the environmental study undertaken for the road project, including key findings, proposed mitigation measures and documents available , is presented in Box below.

Box 8.1: Summary of benefits, negative impacts and mitigation for road upgrade (Component 1)

<b>Status of ESIA:</b>	Final ESIA ready for public disclosure by World Bank after it was reviewed and updated. NEMA approval is expected in the week of 10 Nov 2013.
<b>Key impacts (ESIA findings)</b>	<p>a) <b>Construction phase impacts</b></p> <p><b>Positive impacts:</b></p> <ol style="list-style-type: none"> <li>i) Employment and income opportunities for workers during road construction.</li> <li>ii) Sourcing of construction materials hence income to suppliers and owners of land where quarry and borrow sites are located. Ensuring complete restoration of material source sites should be an enhancement measure for this impact.</li> <li>iii) Rental income for workers camp and equipment yard site owners.</li> </ol>

Enhance measures include:

- Enhancement of this benefit can be through ensuring equal employment opportunity for women.
- Ensuring that construction works at river crossings does not lead to excessive entrainment of sediment into water
- Conducting road safety, HIV/AIDS and gender awareness in project communities, especially targeting schools, commuter motorcycle riders and taxi drivers. Continued sensitization of road workers about environmental due diligence and responsibility
- Tree planting not only for beautification but also carbon sequestration hence contributing to slowing global climate change.

**Negative impacts:**

- i) *Impacts of road alignment* entailing relocation of water and power mains. For mitigation alternative water sources (e.g. spring wells) should be constructed for communities before damaging existing ones. Relocation of power-lines should be done as quickly as possible to avoid prolonged outages.
- ii) *Social ills of construction labour*: prostitution and HIV/AIDS: prostitution and sexual fraternization of workers and communities can raise risk of HIV/AIDS. The contractor should have an AIDS Policy, provide free protection and conduct awareness for workers and project communities.
- iii) *Sourcing of road construction materials* may be associated with loss of vegetation cover, excessive noise, vibrations and dust from stone blasting/crushing and fly rock. It shall a contractual obligation for the contractor to protect communities from these impacts and restore borrow sites and quarries upon closure
- iv) *Haulage of earth construction materials* may pose accident risk to road users, dust contaminating goods in roadside markets and noise at sensitive receptors (schools and health centres). The contractor shall provide safety signage, humps, banksmen and watering to suppress dust.
- v) *Establishment and operation of equipment yard and workers' camps* will require land to set up while their operation will generate domestic and hazardous waste that could contaminate environmental resources (soil, water). Additionally, there can be OHS risks and unrestored sites would cause scenic blight. For mitigation, the contractor should have a waste management plan as a contractual obligation, ensure fire safety on sites and restore sites upon closure.
- vi) *Demolition of structures within reserve of proposed road*: During road upgrade, structures within the road reserve will be demolished but this will not happen until every affected person is compensated. Several structures will be affected in Kagadi Trading Centre, Muhorro, Haikoona, Bwijanga. Mitigation includes implementation of a RAP entailing equitable compensation, resettlement and grievance management.
- vii) *Traffic diversion*: Diversions may temporary delays in transportation of goods and passengers or traffic congestions or accidents (especially for heavily laden trucks and trailers) along detour roads that may not have been constructed properly. This will be mitigated through use of warning banksmen at detours and providing information and plans of intended diversions in adequate advance time.
- viii) *Impact on watercourses*: Along Kyenjojo-Hoima section, there are two major rivers to be crossed and would necessitate bridges, namely: River Muzizi and Nkusi. At these rivers, increase in sediment load in would temporarily impair water. For impact mitigation the contractor shall prevent scouring using gabions, stone pitching or lining banks with concrete. Disposal of waste and overburden in swamps will not be done at any watercourse.
- ix) *Impacts due to operation of the asphalt plant*: Littering due to poor housekeeping at the asphalt plant or improper disposal of unused bitumen and aggregates or bitumen spills would have the localised impact of contaminating environmental resource (soil and water). As control measures: leftover bitumen and aggregates should be collected and properly kept for use on

other sections of the road and bitumen drums should be stored in designated locations and not littered along the road.

**b) *Post-construction phase impacts***

**Positive impacts:**

Long-term benefits of the improved road include enormous distance and journey time savings for traffic to Fort Portal, South Western Uganda and eastern DRC and in areas north of Kigumba (Gulu, Sudan and northeastern DRC). The distance between Kyenjojo and Kigumba via Kampala is approximately 485 km; via the proposed road it is 234 km, a saving of 251 km. Once the proposed project is completed, transport costs for affected traffic would be reduced by up to 50 percent. The road will also provide a strategic link between the northern corridor and Kampala - Gulu -Juba corridor; improve access to markets, social and health services support on-going and future oil and gas operations in the Albertine Graben. Others are reduced vehicle wear/ tear; support to the nation's oil and gas sector; support to tourism; reduced travel time; and lower accident risk.

**Negative Impacts:**

*"New road effect" and associated accidents:* Drivers on a newly improved road may excitedly drive faster than is safe: a phenomenon referred to as "new road effect". UNRA and respective District Local Governments shall undertake road use safety awareness campaigns and provide necessary safety features e.g. signs and humps where required.

**c) *Cumulative impacts***

Induced development may be occasioned by the project especially in towns and trading centres. This impact may occur in trading centres along the road. Slums and urban sprawl due to unplanned induced development are negative and medium to long-term impacts that are costly to reverse.

**d) *Climate change impacts***

Vehicle emissions containing greenhouse gasses will be generated both during road upgrade and eventual use. Quantities generated will depend on type, age and number of equipment used during construction while operation-phase emissions will depend on traffic volume. Impact mitigation will entail use of construction equipment in good mechanical condition and tree planting along the road reserve.

**e) *Gender impacts***

Along the road to be upgraded, women were commonly seen selling foodstuff and consumer goods in kiosks or roadside markets. If kiosks located in the road reserve are displaced this would disproportionately affect women more than men. Farming activities in rain seasons demand a lot of garden work by women, which may impede their employment in road construction. Married women may benefit less from construction employment because their spouses may dictate whether they work on road project or not. This choice being solely a responsibility of an unmarried woman means that single women might benefit from road construction jobs more than their married counterparts. A good road will ease access to healthcare and while this is a benefit for both men and women, the latter will particularly benefit from quick and safe transport to medical facilities, during medical emergencies such as labour. Mitigation actions are:

- i) To the extent possible, equal employment opportunity shall be available for women for road construction jobs. To effect this, the contractor shall encourage women to apply for available jobs by indicating this in job adverts. Additionally Local council representatives working with the contractor on recruitment shall encourage women to apply for project jobs. The aim will be to have at least 10% of workers being female.
- ii) During road construction, women can be involved in a wide range of activities including traffic

<b>Broad mitigation actions</b>	<p>control, store-keeping, security, painting stone pitching, beautification/ landscaping and sweeping.</p> <p>iii) The contractor should use gender-sensitive language such as: “Go Slow, <i>Work in Progress</i>” instead of “Go Slow, <i>Men at Work</i>”. This, coupled with women’s visibility in road works would, contribute to women’s empowerment as well as breaking the stereotype that road construction is a preserve of men.</p> <p>iv) To avoid severance of access to private property like homes, farmlands and grazing fields, the contractor should provide temporary access routes, or “bridges” that can be safely used by especially women, children, disabled and elderly people.</p> <p>v) The contractor will be selective in awarding service contracts, giving preference to women-owned entities. This, for example, is in regard to supply of foodstuffs to workers camps, housekeeping and culinary services for workers.</p> <p>Mitigation of negative impacts will entail:</p> <ul style="list-style-type: none"> <li>▪ Contractor developing requisite impact management plans.</li> <li>▪ Contractor should work with will local authorities to sensitize local communities and workers on HIV/AIDS and providing protection measures for workers</li> <li>▪ Public and workers safety shall be ensured by provision of road signs, protective gear implementation of a good labourforce management (LMP) and onsite medical clinic for accident emergencies.</li> <li>▪ Securing all regulatory permits before commencing work (e.g. for water abstraction, quarry operations, fuel storage).</li> <li>▪ Gender considerations in labourforce employment and facilities at workers camps and construction sites</li> </ul>
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## 8.1 Social impacts of Components 2 and 3

### 8.1.1 Positive social impacts

Positive social impacts of Component 2 and Component 3 are provided in table below.

Table 7: Social benefits of project components 2 and 3

	Project component	Benefit/ impact
1	<p><b>Component 2 : Detailed Planning and Priority Economic Infrastructure provision in five local government areas)</b></p> <p>This component will provide urban planning support to municipalities.</p> <p>Under the component, investments will include:</p> <ul style="list-style-type: none"> <li>▪ Roads</li> <li>▪ Drainage including small bridges and culverts, and,</li> <li>▪ Upgrading of basic</li> </ul>	<p>a) Improved roads enabling access to markets will enhance economic development related to agriculture, fishing, oil and services related to these sectors of the economy.</p> <p>b) Access to markets will improve farm gate prices for local farmers, hence household incomes.</p> <p>c) Improved drainage will enhance sanitation and reduce waterborne disease burden in communities.</p> <p>d) Gender-specific benefits such as:</p> <ul style="list-style-type: none"> <li>▪ Reduced maternal mortality when women in labour can reach healthcare facilities faster.</li> <li>▪ Increased roadside business for women who trade in agricultural produce and crafts.</li> </ul> <p>e) Improved urban plans will ensure optimal use of land, enable environmental</p>

	Project component	Benefit/ impact
	infrastructure to local markets.	conservation, enhance public health, aesthetics, and ease doing business in municipal councils.
2	<p><b>Component 3: Business, Technical, Vocational Education and Training (BTVET)</b></p> <p>Support will include equipping workshops in core trades, upgrading curricula. (Additional facilities e.g. dormitories, dining halls may be provided). Also, linkage with the private sector will be established</p>	<p>It is noted that UPIK has a strategic plan (2014-2019) and enough land after 465 hectares were given to it by Kigumba Cooperative College and a title deed is being processed. UPIK already has a Masterplan for staff houses, student hostels, administration block, training block and waste management site. At UTC Kichwamba, adequate land (82 acres or 33 hectares) is available and currently less than 10% of it is in use. So no land availability limitations are foreseen during implementation of ARSDP projects at these institutions.</p> <p>Benefits under this component will include:</p> <ol style="list-style-type: none"> <li>Improved practical training in UPIK and UTC Kichwamba vocational institutions.</li> <li>Enhanced pedagogical competency when trainers in vocational institutions are retrained.</li> <li>Linkage with private sector and curricula that are responsive to private sector needs will increase rate of employment of students graduating these vocational institutions.</li> <li>The resultant effect will be increased development of small- and medium-scale enterprises (SMEs) in the region and hence sustainable socio-economic development.</li> </ol>

### 8.1.2 Negative social impacts and mitigation measures

Possible negative impacts of project Components 2 and 3 are discussed in table below together with respective mitigation recommendations.

Table 8: Negative social impacts of the project Components 2 and 3

	Project component	Benefit/ impact
1	<p><b>Component 2 : Detailed Planning and Priority Economic Infrastructure provision in five local government areas)</b></p> <p>This component will provide urban planning support to municipalities.</p> <p>Under the component, investments will include:</p> <ul style="list-style-type: none"> <li>▪ Roads</li> <li>▪ Drainage including small bridges and culverts, and,</li> <li>▪ Upgrading of basic infrastructure to local markets.</li> </ul>	<ol style="list-style-type: none"> <li><b>Land take</b> associated with new construction or upgrade of infrastructure or land use change occasioned by new urban plans may lead to loss of assets or physical displacement of structures and businesses. <ul style="list-style-type: none"> <li><u>Mitigation:</u> <ul style="list-style-type: none"> <li>▪ Provide due compensation or resettlement to affected entities, as guided by the RPF.</li> <li>▪ Ensure all grievances are conclusively addressed as per RFP.</li> <li>▪ Compensate for any economic displacement occasioned by project development or urban plans.</li> </ul> </li> </ul> </li> <li><b>Dust emissions during road construction:</b> <p>Dust will stain roadside structures and taint merchandise or produce in shops and markets. Staining may require washing or repainting. Tainted goods for sale (especially sugar, flour, etc) would lose monetary value, hence negative socio-economic impact to affected persons. This impact will be short-term manifesting only during construction phase.</p> <p><u>Mitigation:</u></p> </li> </ol>

	Project component	Benefit/ impact
		<ul style="list-style-type: none"> <li>▪ Contractor should water construction areas to control dust.</li> <li>▪ It is prudent to open only short stretches of roads that can be completed quickly and over which adequate environmental controls (such as watering for dust suppression) can be implemented.</li> <li>▪ Sensitise stakeholder about project schedules, possible dust emission impacts and control measures to be instituted.</li> </ul> <p>c) <b>Temporary severance of access when constructing roads and bridges</b></p> <p>Severance of access to private property during construction works is a negative impact that would affect children, women, people with disabilities and elderly people unable to jump across deep trenches.</p> <p><u>Mitigation:</u> Contractors should devise temporary provisions to avoid severance of access.</p> <p>d) <b>Public safety risks:</b></p> <p>Civil works and construction traffic may pose public risks especially at school crossings and through busy urban areas where children, women or elderly people may be at higher risk of road accidents.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ Safety signs, flagmen, speed control measures and adequate sensitisation of road construction workers and people in project area should be undertaken to minimise accident risk.</li> <li>▪ Road contractors should work together with local leaders to agree public safety measures which should be disseminated to local people.</li> </ul> <p>e) <b>Urban planning that overlooks protection of green areas and wetlands:</b></p> <p>The quest for big tax revenue, status of “expansive municipality”, land for business and residential development may all prompt municipal councils to turn swamps and green areas into built areas. Swamps are sinks and filters for stormwater and control flooding while green areas are important for livable urban communities. Urban planning that does not protect these resources would therefore be retrogressive for socio-economic development (and environmental sustainability).</p> <p><u>Mitigation:</u></p> <p>In equal measure, the key aim of new urban plans should be to ensure both social-economic development and environmental sustainability. Plans should provide for and preserve urban environmental resources such as wetlands and green spaces.</p> <p>f) <b>Impact on resources of cultural heritage</b></p> <p>Resources of cultural heritage may be affected if due consideration and care is not taken during developing urban plan and constructing infrastructure. This would be a negative and long-term impact.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ In developing urban plans, municipalities should preserve resources (e.g.</li> </ul>

	Project component	Benefit/ impact
		<p>buildings, monuments) of cultural heritage.</p> <ul style="list-style-type: none"> <li>▪ During constructing infrastructure, physical cultural resources should be protected and conserved. Any chance finds encountered should be handed to the Department of Museums and Monuments for preservation.</li> </ul>
2	<p><b>Component 3: Business, Technical, Vocational Education and Training (BTVET)</b></p> <p>Support will include equipping workshops in core trades, upgrading curricula and training of instructors. Additional facilities e.g. dormitories, dining halls may be provided. Linkage with the private sector will be established</p>	<p>In the long-term, no negative impacts are predicted to ensue from support to UPIK and UTC Kichwamba but issues below should be considered during project implementation:</p> <ol style="list-style-type: none"> <li>a. Supported institutions should avoid pilferage of workshop equipment supplied by the project (and sale to ever increasing private vocational training schools) by proper inventory control and security. A cost effective security surveillance system may be considered by the project.</li> <li>b. Equipment supplied should match requirements of updated curricula to avoid financial loss and redundant investment</li> <li>c. Equipment support should ensure there is adequate room in workshop to accommodate units supplied. If there is need to modify laboratory buildings to increase space in machine workshops, this should be considered early in the planning stage.</li> <li>d. Private vocational training institutions are increasing in number and technical skills. Instructors trained at UPIK or UTC Kichwamba may quickly be lured away by higher pay at private institutions, defeating the purpose and intent of the project. No smart control can be proposed for this risk but management of UPIK and UTC Kichwamba should devise feasible prevention measures.</li> </ol> <p>e. Construction of dormitories, dining halls or other buildings on site may have the following impacts:</p> <ol style="list-style-type: none"> <li>i) <b>Construction noise, vibrations and dust</b></li> </ol> <p>Construction noise or vibrations will disrupt teaching and learning. This impact can be significant where construction activities last for several months or spanning examination periods. Exposure to dust from material handling, demolition and vehicle movement may pose short-term respiratory infirmities (e.g. coughs) to persons exposed.</p> <p><u>Impact management:</u> Schools management should require contractors to schedule noisy activities outside class time or examination periods.</p> <ol style="list-style-type: none"> <li>ii) <b>Occupational safety risks for construction workers</b></li> </ol> <p>Undertaking construction activities without necessary safety gear such as hard hats, hand gloves, foot protection and safety latches when working at heights could have risks of injuries leading to disability or even loss of life. These construction workers are the income earners in their homes and extended families therefore this risk would pose long-term financial handicap in affected homes.</p> <p><u>Impact management:</u> All construction workers must be provided with requisite safety gear and trained in their proper use.</p> <ol style="list-style-type: none"> <li>iii) <b>Safety risks for students near construction sites</b></li> </ol> <p>Near and around construction sites, students would be exposed to risks of harm by falling debris, dust and tripping on construction materials (aggregate, wood poles,</p>

	Project component	Benefit/ impact
		<p>etc).</p> <p><u>Impact management:</u> Students in vocational institutions are old enough to heed advice to safely keep away from construction sites (unless under instruction or training). Therefore before and during construction, UPIK and UTC administration should sensitize students about construction risks on campus and prescribe safety measures.</p> <p>iv) <b>Displacing prevailing uses at locations where new buildings would be built</b></p> <p>It may happen that sites where buildings will be built may currently be used for various purposes e.g. green areas. Building on these locations would stop their availability for these uses.</p> <p><u>Impact management:</u> Early enough, management of UPIK and UTC Kichwamba should plan to relocate to alternative sites, any activities going on at locations where new structures will be built.</p> <p>v) <b>Excessive enrolment numbers not supportable by available facilities</b></p> <p>Improvement of facilities at UPIK and UTC Kichwamba will attract a large number of students. In quest for revenue, these institutions may enrol more students than can be supported by existing facilities, leading to overcrowding and ineffective teaching-learning experience.</p> <p><u>Impact management:</u> Enrolment numbers should be maintained at levels commensurate with available facilities.</p>

## 8.2 Environmental impacts of Components 2 and 3

### 8.2.1 Positive environmental impacts

For a municipality to grow and develop in the long-term, it cannot disregard its environment. The environment cuts across all sectors, income groups and management areas. An *ad hoc* approach to environmental issues is fragmentary, expensive and inefficient. For a city to be effective and efficient, it must have an urban plan that integrates environment sustainability into its planning and functioning.

The proposed support in urban planning will enable municipalities incorporate environmental considerations into their structure and function. A municipality's environmental credentials and therefore its marketability, are strengthened if prospective investors can see that sustainable resource use has been factored into urban development strategy, especially the cost of known restraints such as finite water supplies, energy costs, the economic and job-creating potential of eco-efficient industries (for example, waste recycling and renewable energy) and local urban agriculture. Aside from the goal of sustainable development and the impetus to maximise economic, social and environmental benefits, integrating the environment in urban planning and management has additional attractions on a local scale. Budgets of municipalities may benefit from environmental policies which encourage recycling and generate income from sale of recyclable resources, while at the same time needing less landfill space. Energy efficiency can reduce municipal spending on street lighting. Eco-efficiency can result in lower operating costs for local businesses, giving the municipality a competitive advantage in attracting investment. Circular Economy methods like local industrial planning have the potential to reuse resources including waste and water.

Specific benefits municipalities will gain from incorporating environmental planning into urban plans are provided in Table below.

Table 9: Benefits of environmental planning in urban planning

	Actions	Direct effects	Other effects
1	Improved provision of water and sanitation services	Considerable reduction in disease burden from water-borne diseases and premature deaths (especially from malaria in children).	<ul style="list-style-type: none"> <li>▪ For income earners, less time off work from illness or from nursing sick family members.</li> <li>▪ Better nutrition (for example, less food lost to diarrhoea and intestinal worms). Less physical effort needed in collecting water.</li> <li>▪ Lower overall costs for those who, prior to improved supplies, had to rely on expensive water vendors.</li> </ul>
2	Less crowded, better quality housing—through supporting low income groups to build, develop or buy less crowded, better quality housing	<ul style="list-style-type: none"> <li>▪ Drop in household accidents (often a major cause of serious injury and accidental death in poor quality, overcrowded housing) and remove necessity for low income groups to occupy land sites at high risk from floods, landslides or other hazards.</li> <li>▪ Can reduce indoor air pollution</li> </ul>	<ul style="list-style-type: none"> <li>▪ Lower risk for low income groups to lose their homes and other capital assets to accidental fires or disasters.</li> <li>▪ Secure, stimulating indoor space an enormous benefits for children's physical, mental and social development.</li> </ul>
3	Avoidance of hazardous land sites for settlements	Reduces number of people at risk from floods, landslides or risks from other hazardous sites. The damage or destruction of housing and other assets from, for instance, floods or landslides can push low income households into absolute poverty.	Sites within urban areas that may be hazardous for settlements are often well-suited to public parks or green belts.
4	Zoning for green belts	Tree belts purify air (by capturing dust), act as carbon sinks and temper temperature of local airsheds.	In urban areas trees provide shed for the public.
5	Improved solid waste management services	Removes garbage from open sites and drainage ditches.  Greatly reduced risk of many animal and insect disease vectors and stops garbage blocking drains.	Considerable employment opportunities in well-managed solid waste collection systems where recycling, reuse and reclamation are promoted.
6	Support for community action to improve local environment	If well managed, lots of low-cost ways to reduce environmental hazards and improve environmental quality in informal settlements.	Employment creation; minimum incomes help households avoid poverty.  Can reduce sense of social exclusion.
7	Support for more participatory plans	Low income groups with more possibilities of influencing urban authorities' priorities on environmental policy and investment.	Can lead to low income groups getting greater influence in other sectors.
8	Improved public transport	Affordable, good quality public transport keeps down time and costs for low income groups getting to and from work.	Can reduce air pollution and its health impacts. Can reduce disadvantages of living in peripheral locations and help keep down house prices.

## 8.2.2 Negative environmental impacts and risks

There are positive and negative impacts envisaged from urban planning (Component 2). Development of infrastructure (roads, bridges, etc) may impacts such as dust emissions affecting local air quality, improper disposal of construction waste in unauthorised areas e.g. swamps.

They are social impacts associated with transforming private land into public good. Implementation of proper physical planning is a responsibility of local governments, and they lack capacity to enforce compliance. Planning and landuse changes may lead to displacement of formal and informal sentiments or economic activities, leading to loss of livelihoods and places of abode.

Other impacts of Components 2 and 3 are discussed in table below.

Table 10: Potential environmental impacts of Components 2 and 3

Project component	Potential impacts
<p><b>Component 2 : Detailed Planning and Priority Economic Infrastructure provision in five local government areas)</b></p> <p>This component will provide urban planning support to municipalities.</p> <p>Under the component, investments will include:</p> <ul style="list-style-type: none"> <li>▪ Roads</li> <li>▪ Drainage including small bridges and culverts, and,</li> <li>▪ Upgrading of basic infrastructure to local markets.</li> </ul>	<p>a) <b>Dust emissions from road construction</b> activities affecting local air quality.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ Contractor should water construction areas to control dust.</li> <li>▪ It is prudent to open only short stretches of roads that can be completed quickly and over which adequate environmental controls (such as watering for dust suppression) can be implemented.</li> </ul> <p>b) <b>Imprudent management of construction waste:</b> Besides causing visual blight, imprudent disposal of waste in unauthorised areas (e.g. in swamps) would contaminate soil and watercourses, some of which may be ones on which downstream communities depend for water needs. Irresponsible dumping of waste oil at construction sites, stormwater drains or at repair yards would lead to contamination of soil and surface water (rivers and streams) some of which may be used by communities for domestic water supplies.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ Contractor must only dispose waste in authorised sites.</li> <li>▪ When road equipment is repaired at construction sites, all waste oils should be collected for proper authorised disposal, reuse or recycling by a NEMA-licensed entity.</li> </ul> <p>c) <b>Hydrological and water quality impacts at bridge construction sites</b> when water is diverted, depriving downstream uses of enough quantities. Sedimentation and contamination of watercourses (such as with equipment waste oil) at bridge construction sites would affect local users and livestock that depend on these for water.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> <li>▪ Bridge works should obtain construct permit from Directorate of Water Resources Management (DWRM).</li> <li>▪ Contractors must not dump waste in watercourses.</li> <li>▪ Engineering controls should be instituted to avoid excessive sedimentation at bridge construction sites. High sediment loads would affect quality of water available for downstream user.</li> </ul> <p>d) <b>Obtaining construction materials from unpermitted sources (quarry or borrow</b></p>

Project component	Potential impacts
	<p><b>sites)</b> would promote environmental degradation. Such unauthorised sources often lack have environment management plans and restoration plans and leave long-term impacts including visual blight, water ponding and public health risk.</p> <p><u>Mitigation:</u> Contractors should obtain/ procure construction materials from sources permitted by local authorities or NEMA.</p> <p>e) <b>Impact on fauna</b> Road construction may affect fauna through damage of ecosystems. Road use may cause roadkill. The construction-phase impacts are temporary while roadkill during road use is recurrent if no controls are instituted.</p> <p><u>Mitigation:</u> Roadworks should not affect sensitive fauna ecosystems. To avoid roadkill, warning signs should be provided at animal crossing to warn motorists to slow down</p>

### 8.3 Other typical construction impacts

Generic impacts, mainly associated with construction of buildings (e.g. those to be built under Component 3) are outlined below and detailed in Annex 9:

Table 11: Typical construction impacts likely to b arise from Component 3 activities

	Action	Impact	Mitigation
1	Building activities.	Construction noise.	Schedule noisy activities to be outside class hours.
2	Clearing of vegetation.	<ul style="list-style-type: none"> <li>▪ Soil erosion</li> <li>▪ Dust emissions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Minimise vegetation clearing by restring activity to building footprint, as much as possible.</li> <li>▪ Revegetate cleared areas as quickly as practicable.</li> <li>▪ Ensure proper site drainage</li> </ul>
3	Material transportation.	<ul style="list-style-type: none"> <li>▪ Accidents risk.</li> <li>▪ Road dust.</li> <li>▪ Traffic noise at vocational institution's campus.</li> </ul>	Schedule this to be before or after class hours.
4	Change of Landuse.	<ul style="list-style-type: none"> <li>▪ Direct Impact – On plot of land</li> <li>▪ Indirect Impact – On neighbouring plots.</li> <li>▪ Cumulative Impact – On surrounding area which will gradually change.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Restrict development to institution's land.</li> <li>▪ Ensure development is permitted by local physical planning office.</li> </ul>
5	Risk of falling debris.	Accident to students.	Fence off construction site to avoid access by students.
6	Waste management	Illegal dumping of waste in unauthorized places leading to contamination or grievances by property owners.	<ul style="list-style-type: none"> <li>▪ Ensure waste disposal is done with guidance of local environment officer's guidance and authorization.</li> <li>▪ Stripped soil (overburden) should be used for site restoration/ landscaping, rather than being dumped offsite.</li> <li>▪ Workers should not liter campus with litter (plastic bags, water bottles, etc).</li> <li>▪ Reusable waste (e.g. timber planks, paper bags, etc) should be given to</li> </ul>

			<p>local people if requested.</p> <ul style="list-style-type: none"> <li>▪ Pit latrines should be lined with masonry brickwork to enable their emptying with a honey sucker when full.</li> </ul>
7	Working at heights or depths	<ul style="list-style-type: none"> <li>▪ Risk of falls when workers at height (e.g. roofs) do not use safety latches.</li> <li>▪ Risk of workers being interred by collapsing earth walls when digging pit latrines.</li> </ul>	<ul style="list-style-type: none"> <li>▪ All workers should have appropriate safety gear</li> <li>▪ Latrines should be safely dug on firm ground, carefully watching out for signs of possible wall failure.</li> </ul>
8	Material acquisition	<ul style="list-style-type: none"> <li>▪ Leaving borrow sites unrestored after project completion.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Obtain material from already existing borrow sites and stone quarries.</li> </ul>
9	Employment	<ul style="list-style-type: none"> <li>▪ Local people benefitting from construction projects</li> </ul>	<ul style="list-style-type: none"> <li>▪ Contractors should hire atleast 5 people from the local community at anyone project.</li> </ul>
10	Occupational safety	<ul style="list-style-type: none"> <li>▪ Workers getting buried by collapsing earth walls when digging pit latrines</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pits must never be dug in unstable soils</li> <li>▪ All workers must have necessary safety gear</li> </ul>

## 9 GRIEVANCE MANAGEMENT

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If any grievances arise during implementation of ARSDP projects (especially Component 1 and 2 but possibly 3 as well), they should be addressed through a systematic and documentable grievance mechanism. The grievance redress mechanism should provide avenues for affected persons to lodge complaints or grievances against the project or contractors. It also should describe procedures, roles and responsibilities for managing grievances and resolving disputes. Every aggrieved person shall be able to trigger this mechanism to quickly resolve their complaints.

Key objectives of the grievance process are supposed to be:

- a) Provide affected people with avenues for making a complaint or resolving any dispute that may arise during project implementation;
- b) Ensure that appropriate and acceptable corrective actions are identified and implemented to address complaints;
- c) Verify that complainants are satisfied with outcomes of corrective actions;
- d) Avoid the need to resort to judicial (legal court) proceedings, unless all non-judicial avenues fail.

Based on above objectives, grievance management process is described below:

### ***Step 1: Receipt of complaint***

A verbal or written complaint from a complainant will be received by the site supervising engineer and recorded in a complaints log kept on site.

### ***Step 2: Determination of corrective action***

If in his/her view, a grievance can be solved at this stage, the site supervising engineer will determine a corrective action in consultation with the aggrieved person.

Grievances will be resolved and status reported back to complainants within 5 working days. If more time is required this will be communicated clearly and in advance to the aggrieved person.

### ***Step 3: Meeting with the complainant***

The proposed corrective action and timeframe in which it is to be implemented will be discussed with the complainant within 5 days of receipt of the grievance. Consent to proceed with corrective action will be sought from the complainant and witnessed by the area's local council chairperson (LC Chairman).

### ***Step 4: Implementation of corrective action***

Agreed corrective action will be undertaken by the project or its contractor within the agreed timeframe. The date of the completed action will be recorded in the grievance log.

### ***Step 5: Verification of corrective action***

To verify satisfaction, the aggrieved person will be asked to return and resume the grievance process, if not satisfied with the corrective action.

## 10 ENVIRONMENTAL AND SOCIAL SCREENING PROCESS

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### 10.1 Environmental and Social Screening Process

Sections below illustrate stages (steps 1-7) of the environmental and social screening process leading to the review and approval of the ARSDP activities. The purpose of this screening process is to determine which activities are likely to have negative environmental and social impacts; to determine appropriate mitigation measures for activities with adverse impacts; to incorporate mitigation measures into the sub-program as appropriate; to review and approve the sub-program's proposals; to monitor environmental parameters during the implementation of activities. The extent of environmental work that might be required prior to the commencement of the sub-programs will depend on the outcome of the screening process described below.

### 10.2 Screening Steps

The environmental and social process of screening consists of the following steps:

#### Step 1: Screening of the ARSDP components

Project screening will be based on a project brief prepared by the project beneficiaries. Screening will be carried out by the Municipal or District Environment Officer at local government level. Every district, Town or Municipal Council in Uganda has a District Environment Officer (DEO) employed by the District Local Government. These environmental officers are trained and experienced in environmental management and ESIA procedures. The District Environment Officer working together with a Community Development Officer (CDO) will complete the Environmental and Social Screening Form to facilitate identification of potential environmental and social impacts, determination of their significance (see Annex 12), assignment of appropriate environmental category, proposal of environmental mitigation measures, and where required recommend undertaking of an Environmental & Social Impact Assessment (EIA).

Social aspects to be considered during screening include, but not limited to:

- Employment opportunities
- HIV/AIDS
- Physical and economic displacement
- Impact on livelihoods
- Impact on health and sanitation
- Health and sanitation
- Impact on private property/ land acquisition (Note that land take impacts will be addressed in a RAP as guided by a RPF prepared for this project)

Respective ministries (MoES, MoLG, MLHUD) will review the screening forms and where necessary consult NEMA especially to determine the level of EA if required.

#### Step 2: Assigning of Socio-Environmental Categories

Assignment of appropriate environmental category to a particular activity will be based on the information provided in the environmental and social screening form that the District or Municipal Environmental Officer (DEO) together with CDOs will have filled.

### **Step 3: Carrying out Socio-Environmental Assessment**

After analyzing data contained in the environmental and social screening form and after having identified the right environmental category hence scope of the environmental and social assessment required, the Municipal or District Environment Officer working together with a CDO will make a recommendation to the project beneficiary establishing whether: (a) no ESIA will be required; (b) the implementation of mitigation measures will be required; or (c) a separate environmental and social impact assessment will be carried out. In case of activities under (a) and (b) above, ARSDP environmental and social mitigation measures checklist will be used (see Annex 2): Using the checklist environmental and social mitigation measures will be proposed by Municipal/ District Environment Officer and community development officers at high Local Government level and an ESMP developed (as shown in Section 10). In case of ARSDP activities falling under (c) above, and Environmental and Social Impact Assessment (ESIA) will be carried out to provide for environmental and social due diligence. The project beneficiary will source for an ESIA practitioner approved by NEMA to prepare terms of reference and to undertake the EIA study.

The ESIA will identify and assess the potential social-environmental impacts for the proposed activities, assess alternative solutions and will design mitigation, management and monitoring measures to be adopted. These measures will be quoted in the Environmental & Social Management Plan (ESMP) that will be prepared as part of the ESIA for each sub-program. The preparation of the ESIA and ESMP will be done in consultation with all relevant stakeholders, including the people likely to be affected by the project.

The ESIA will follow the national procedure established in the framework of the Environment Management Act, EIA Regulations, Guidelines and consistent with the WB OP 4.01. In situations where the screening process identifies the need for land acquisition, qualified service providers will prepare a RAP (Resettlement Action Plan), consistent with the OP 4.12, and the Resettlement Policy Framework (RPF) that has been prepared as a separate document for this program.

An ESIA report should have content and structure presented in Annex 10.

### **Step 4: Review and Approval**

Review: At the district or municipal level, the District Environment Officer and communities will review the environmental and social screening forms and make recommendations as to whether results of the screening process are acceptable. In case an ESIA needs to be undertaken, ToR's for the study will be prepared and approved by NEMA. The ESIA study will be undertaken by the certified practitioners in accordance with ToRs approved by NEMA.

Approval/Rejection: Review of ESIA report is done by NEMA in consultation with the Lead Agencies and Local Governments.

The comments from the Local Authority will be considered by NEMA in making a final decision on project implementation. If the ESIA is approved, NEMA issues an environmental permit that confirms the ESIA has been satisfactorily completed and implementation of proposed sub-program may commence.

### **Step 5: Public Consultations and Disclosure:**

Public consultations will take place during environmental and social screening process, and input from the public consultations will be reflected in the design of mitigation and monitoring measures.

According to the procedures governing the ESIA, public information and participation must be ensured during the scoping period and the preparation of the terms of reference of the Environmental and Social Impact Assessment. This will be done by ESIA practitioner, supported by \ project beneficiaries. Public consultations include:

- One or several meetings for the presentation of the sub-program with a gathering of local authorities, the populations, the concerned organizations;
- The opening of a register available to everybody where appreciations, remarks and suggestions formulated on the program.

World Bank requires disclosure of ESMF both in-country and at WB's infoshop.

### **Step 6: Environmental Monitoring**

Environmental monitoring aims at checking effectiveness of mitigation measures. Municipal and District Environment Officers will monitor implementation of environment mitigation measures based on the contractor's work plan on quarterly basis. On annual basis the District Environment Officers, MLHUD, MoFPED, MEMD and MoES in collaboration with NEMA will carry out a national assessment of ARSDP performance in environment and natural resource management using the indicators mentioned in Step 7.

### **Step 7: Monitoring indicators**

The monitoring indicators that will be under ESMP for assessing environmental management for ARSDP include:

- Loss of vegetation
- Land degradation
- Soil and water contamination
- Dust levels occasioned by construction activities
- Compliance with Legislations.

Use of the indicators for environmental monitoring will be included in the training and capacity building program.

## 11 PROJECT IMPLEMENTATION ARRANGEMENTS

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### 11.1 Implementation Arrangements

The main implementation proponent of the project is Ministry of Finance, Planning & Economic Development (MoFPED). However due to the various project components, a *Steering Committee* (chaired by MoFPED) comprising representatives of MoLG, MLHUD, MoES and UNRA will control implementation of this project, as follows:

**a) Component 1:**

This will be managed by UNRA which will be responsible for finalization of detailed design, bidding documents, cost estimates and related environmental and social studies.

**b) Component 2:**

Overall management of local infrastructure sub-component of Component 2 activities will rest with the Ministry of Local Government who will be responsible for procurement activities and engaging consultants to undertake detailed design and contract management. Local support will be provided by respective District and Municipal Councils. For planning sub-component of Component 2, the Ministry of Lands, Housing and Urban Development will take the lead and carry responsibility for drafting Terms of Reference and advising and supporting MoLG, District Councils and Municipal Councils on implementation of the planning sub-component.

**c) Component 3:**

The Ministry of Education and Sports (MOES) will be responsible for implementing this component through the Department of Business, Technical, Vocational Education and Training.

MoES will work and coordinate together with respective technical government departments such as Petroleum Exploration & Production Department (PEPD) in MEMD for technical support to Uganda Petroleum Institute - Kigumba (UPIK), especially on practical training proposals and curricula upgrade.

### 11.2 Roles of Local Governments

Local governments will be the recipients and beneficiaries of ARSDP. Town/ Municipal/ District Environmental Officers and Town/ Municipal/ District Engineers will also be involved in monitoring ARSDP implementation, especially construction activities. District Land Officers (who are under the Ministry of Lands, Housing & Urban Development) may also be involved where land use change, property valuation and resettlement are encountered during project implementation. These officials have adequate skills to undertake this monitoring and do not require further training. At local government level, a community development officer (CDO) will be essential for effective implementation of the social aspects of the ESMF.

### 11.3 Monitoring socio-environmental aspects comprised in this ESMF

*Steering Committee* (chaired by MoFPED), Town/Municipal or District Environment Officers will be the key personnel responsible for monitoring environmental and social impacts of ARSDP activities. There is also a possibility of hiring supervising consultants to monitor the construction phase and these could be required to have Environmental Specialist to monitor environmental aspects.

In accordance with the provisions in the National Environment Act Cap 153, The National Environment Management Authority (NEMA) gazetted/warranted District Environmental Officers as inspectors for monitoring of socio-environmental impacts of developments at local government level, hence their mandate includes

proposed activities of ARSDP projects. DEOs are gazetted Environmental Inspectors by NEMA following provisions in the National Environment Act Cap 153. They (DEOs) are appointed by the District Service Commission in Local Governments and their roles are provided for in the National Environment Act.

#### 11.4 Due Diligence for Socio-environmental aspects at Planning, Design and Implementation Stages

Many potential socio-environmental impacts can be prevented or lessened by taking due consideration at planning and design stages. To ensure this is done, the following measures are recommended:

- a) **Design stage:** Project design should take consideration of socio-environmental impact mitigations proposed in this ESMF and any ESIA prepared for the project components. For instance, road design should incorporate provisions for use (access, crossing by disabled persons).
- b) **Procurement/ Tendering:** Tendering processes should ensure that contactors provide evidence of socio-environmental policies and plans appropriate to this project and have personnel (e.g. Sociologist/ environmental Officer) to manage their implementation.
- c) **Stakeholder involvement:** Project Planning should entail extensive participation by stakeholder including community representatives, representatives of people with disabilities and civil society organizations to provide views on aspects to be considered in project designs. Project designs should also be presented to stakeholders to seek views on suitability/ appropriateness and garner public consensus.
- d) **Supervision and monitoring:** When implementing the project, contractors should have environmental management plans for construction activities and verifiable indicators against which they can be checked. Effective implementation of socio-environmental controls should be a contractual obligation. Monitoring during project implementation should involve all stakeholders to ensure that socio-environmental impacts are brought to the attention of implementing entities.

## 12 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

ESMPs will be prepared for all sub-projects and this section provides guidance and format for their (ESMPs) development.

Environmental and Social Management Plan (ESMP) for ARSDP is intended to ensure efficient environmental and social management of its activities. The ESMP translates recommended mitigation and monitoring measures into specific actions that will be carried out by the proponent. The main components of an ESMP are described in the Table 12 below, which reflects practice at the World Bank. Ideally the ESMP should contain the following:

- Summary of the potential impacts of the proposal;
- Description of the recommended mitigation measures;
- Statement of their compliance with relevant standards;
- Allocation of resources and responsibilities for plan implementation;
- Schedule of the actions to be taken;
- Programme for surveillance, monitoring and auditing; and
- Contingency plan when impacts are greater than expected.

The ESMP should contain commitments that are binding on the proponent. It can be translated into project documentation and provide basis for a legal contract that prescribes responsibilities of the proponent. In turn, the proponent can use the ESMP to establish environmental performance standards and requirements for those carrying out the works or providing supplies. An ESMP can also be used to prepare an environmental management system for the operational phase of the project.

Table 12: Components of ESMP

<b>Components of ESMP</b>	
<b>EMP Component</b>	<b>How to address</b>
<b>Summary of impacts</b>	The predicted adverse environmental and social impacts for which mitigation is required should be identified and briefly summarised. Cross referencing to the EA report or other documentation is recommended.
<b>Description of mitigation measures</b>	Each mitigation measure should be briefly described with reference to the impact to which it relates and the conditions under which it is required (for example, continuously or in the event of contingencies). These should be accompanied by, or referenced to, project design and operating procedures which elaborate on the technical aspects of implementing the various measures.
<b>Description of monitoring programme</b>	The monitoring program should clearly indicate the linkages between impacts identified in the EIA report, measurement indicators, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions.
<b>Institutional arrangements</b>	Responsibilities for mitigation and monitoring should be clearly defined, including arrangements for co-ordination between the various actors responsible for mitigation.
<b>Implementation schedule and reporting procedures</b>	The timing, frequency and duration of mitigation measure should be specified in an implementation schedule, showing links with overall project implementation. Procedures to provide information on the progress and results of mitigation and monitoring measures should also be clearly specified.
<b>Cost estimates and sources of funds</b>	These should be specified for both the initial investment and recurring expenses for implementing all measures contained in the ESMP, integrated into the total project costs, and factored into loan negotiations.

Source: World Bank, 1999

## 13 ESMF BUDGET

The budget below is proposed for this ESMF.

Table 13: Proposed ESMF budget and budget notes

	Component	Cost (USD)
1	<p><b>Capacity building:</b></p> <p>a) Training District Technical Officers and in World Bank's Social and Environmental Safeguards requirements and EIA process in Uganda.</p> <p><i>Timing:</i> Before commencing project design.</p> <p>b) Training Ministry Social and Environmental Focal Persons in World Bank's Social and Environmental Safeguards requirements and EIA process in Uganda.</p> <p><i>Timing:</i> Before commencing project design activities.</p>	100,000
2	<p><b>Monitoring</b> project procurement, design and implementation/ construction for social-environmental compliance.</p> <p><i>Frequency:</i> Monitoring done every quarter throughout the project implementation period.</p>	150,000
3	Facilitation of stakeholder engagement (one meeting every Quarter, throughout the project implementation period)	40,000
	<b>TOTAL (USD)</b>	<b>290,000</b>

## 14 CONCLUSION

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This ESMF describes the proposed ARSDP components, identifies likely social and environmental impacts and proposes management measures to control socio-environmental effects during project implementation.

This ESMF provides guidance on how environmental and social impacts of the project shall be assessed and managed. This notwithstanding, at a general level, potential impacts of project components have been discussed and possible mitigation provided.

Institutional and capacity assessment undertaken for the respective institutions indicates that there is adequate safeguards capacity at the Ministry of Lands, Housing and Urban Development that may provide overall coordination and supervision during implementation.

It can also be concluded that there are adequate environmental and social policies in Uganda to guide the preparation of the relevant safeguards assessments during implementation, but with tendencies of weak follow-up during supervision and monitoring especially in the Ministry of Education. However, under this project, the capacity gap at MoES can be bridged by use of the safeguards capacity of Ministry of Lands, Housing and Urban Development.

During various stakeholder consultations, it was very evident that the project is anticipated to benefit communities and improve service delivery in the Albertine region and contribute to the overall socio-economic development of Uganda. However, this calls for very close involvement of respective District Local Governments and Local Community Leaders.

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23. Physical Planning Act 2010
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25. MOLG Environmental Manual
26. Socio-economic Assessment Tool of MLHUD

## Annexes

### Annex 1: Environmental and Social Screening Form (ESSF)

Please type or print clearly, completing this form in its entirety. You may provide additional information on a separate sheet of paper if necessary. Kindly note that the information you are to provide is required by Section 22 of the National Environmental Management Act of 1994 and it is an offence to give inaccurate information under Section 53 (C) of the same Act.

#### SECTION 1: INFORMATION ON THE CONTACT PERSON

Name: -----

Institutional Affiliation -----

Business Title / position -----

Business Address -----

Telephone -----

#### SECTION 2: DESCRIPTION OF THE PROPOSED PROGRAM

Name of Proposed Program -----

Date expected to start construction -----

Proposed location of program -----  
(Attach a map or maps, covering the proposed site and Surrounding 5 km radius)

Land Area -----  
(Approximate land area and of proposed location)

Current Land use (Describe how the land is being used at present)

-----

Describe any Possible Alternative Site(s) -----

Describe other types of facilities (including health centers and schools) which are located within 100 meters of the site, or are proposed to be located near the proposed facility. Indicate the proximity of the proposed site to residential areas, national parks or areas of ecological, historical or cultural importance.

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Indicate whether adequate infrastructure exists at the proposed location, or whether new building, roads, electricity and water lines, or drainage systems will need to be constructed as a part of the proposed program.

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**SECTION 3: EMPLOYEES AND LABOURERS**

Number of people to be employed:

Employees and Laborers	During Construction	During Routine Operation
FULL-TIME		
PART-TIME		

Indicate whether you plan to construct housing / sanitation facilities for temporary or permanent Workers.

**SECTION 4: PRODUCTS**

Briefly state the nature of the product(s) or output of the proposed sub-program and the expected quantities on a quarterly or annual basis. Indicate the intended uses of the product(s).

Name of Product / Output	Description of uses	Anticipated Output per Qtr/Yr

**SECTION 5: BY-PRODUCTS, WASTE MANAGEMENT AND DISPOSAL**

Specify the nature of each waste or by-product and the quantity to be generated

Type	Description	Quantity in Kg per wk/mo	Proposed disposal method
Solid (Bulk)			
Solid (particulate)			
Liquid			
Gaseous			
Medical Waste			
Asbestos			
PCB			
Other			

Proposed methods of disposal or management of waste (e.g. Burning, burying, landfills etc.) and capacity needed to safely implement the proposed disposal method.

Type(s) and Source	Method of Disposal / Management	Capacity Needs

Indicate sources of noise pollution, type / quality of noise (i.e. machinery / repetitive pounding, etc.)

Source of Noise	Type of Noise

**SECTION 6: ENVIRONMENTAL IMPACTS**

Please indicate environmental impacts that may occur as a result of the proposed program.

**A. The Biological Environment****8.0 The Natural Environment**

8.1 Describe the habitats and flora and fauna in the sub-program area and in the entire area expected to be affected by the sub-program (e.g., downstream areas, access roads):

8.2 Will the sub-program directly or indirectly affect:

8.2.1 Natural forest types?

8.2.2 Swamps?

8.2.3 Wetlands (i.e., lakes, rivers, swamps, seasonally inundated areas)?

8.2.4 Natural critical habitats (parks, protected areas)?

8.2.5 Other habitats of threatened species that require protection under Mozambican laws and/or international agreements?

YES \_\_\_\_ NO \_\_\_\_\_

8.3 Are there according to background research / observations any threatened / endemic species in the program area that could be affected by the program?

YES \_\_\_\_ NO \_\_\_\_\_

8.4 Will vegetation be cleared?

YES \_\_\_\_ NO \_\_\_\_\_

8.5 Will there be any potential risk of habitat fragmentation due to the clearing activities?

YES \_\_\_\_ NO \_\_\_\_\_

8.6 Will the program lead to a change in access, leading to an increase in the risk of depleting biodiversity resources?

YES \_\_\_\_ NO \_\_\_\_\_

Provide an additional description for "yes" answers:

\_\_\_\_\_

**9.0 Protected Areas**

Does the sub-program area or do sub-program activities:

9.1 Occur within or adjacent to any designated protected areas?

YES \_\_\_\_ NO \_\_\_\_\_

9.2 Affect any protected area downstream of the program?

YES \_\_\_\_ NO \_

9.3 Affect any ecological corridors used by migratory or nomadic species located between any protected areas or between important natural habitats (protected or not) (e.g. mammals or birds)?

YES \_\_\_ NO \_

Provide an additional description for "yes" answers:

\_\_\_\_\_

10.0 Invasive Species

10.1 Is the sub-program likely to result in the dispersion of or increase in the population of invasive plants or animals (e.g. along distribution lines or as a result of a dam)?

YES \_\_\_ NO \_

Provide an additional description for a "yes" answer: \_\_\_\_\_

B. The Physical Environment

11.0 Geology / Soils

11.1 Will vegetation be removed and any surface left bare? YES \_\_\_\_\_ NO \_\_\_

11.2 Will slope or soil stability be affected by the program? YES \_\_\_\_\_ NO \_\_\_

11.3 Will the sub-program cause physical changes in the program area (e.g., changes to the topography)?  
YES \_\_\_ NO \_\_\_

11.4 Will local resources, such as rocks, wood, sand, gravel, or groundwater be used? YES \_\_\_ NO \_\_\_

11.5 Could the sub-program potentially cause an increase in soil salinity in or downstream the program area?  
YES \_\_\_ NO \_\_\_

11.6 Could the soil exposed due to the program potentially lead to an increase in lixiviation of metals, clay sediments, or organic materials? YES \_\_\_ NO \_\_\_

12.0 Landscape / Aesthetics

12.1 Is there a possibility that the sub-program will adversely affect the aesthetics of the landscape?  
YES \_\_\_ NO \_\_\_

13.0 Pollution

13.1 Will the sub-program use or store dangerous substances (e.g., large quantities of hydrocarbons)?  
YES \_\_\_ NO \_\_\_

13.2 Will the sub-program produce harmful substances? YES \_\_\_ NO \_\_\_

13.3 Will the sub-program produce solid or liquid wastes? YES \_\_\_ NO \_\_\_

13.4 Will the sub-program cause air pollution? YES \_\_\_ NO \_\_\_

13.5 Will the sub-program generate noise? YES \_\_\_ NO \_\_\_

13.6 Will the sub-program generate electromagnetic emissions? YES \_\_\_ NO \_\_\_

13.7 Will the sub-program release pollutants into the environment? YES \_\_\_ NO \_\_\_

13.8 Will the sub-program generate medical waste? YES \_\_\_ NO \_\_\_

13.9 Will the sub-program generate asbestos? YES \_\_\_ NO \_\_\_

14.0 Will the sub-program generate PCB? YES\_\_\_ NO\_\_

**C. Social Environment**

14.0 Land use, Resettlement, and/or Land Acquisition

14.1 Describe existing land uses on and around the sub-program area (e.g., community facilities, agriculture, tourism, private property, or hunting areas):

14.2 Are there any land use plans on or near the sub-program location, which will be negatively affected by sub-program implementation? YES \_\_\_ NO\_\_\_\_\_

14.3 Are there any areas on or near the sub-program location, which are densely populated which could be affected by the sub-program? YES \_\_\_ NO \_\_

14.4 Are there sensitive land uses near the program area (e.g., hospitals, schools)? YES \_\_\_ NO \_\_\_

14.5 Will there be a loss of livelihoods among the population? YES \_\_\_\_\_ NO \_\_

14.6 Will the sub-program affect any resources that local people take from the natural environment? YES \_\_\_ NO \_\_\_\_\_

14.7 Will there be additional demands on local water supplies or other local resources? YES \_ NO \_

14.8 Will the sub-program restrict people's access to land or natural resources? YES \_\_\_\_\_ NO \_\_\_\_\_

14.9 Will the program require resettlement and/or compensation of any residents, including squatters?  
YES \_\_ NO \_\_\_\_\_

14.10 Will the sub-program result in construction workers or other people moving into or having access to the area (for a long time period and in large numbers compared to permanent residents)? YES \_\_\_ NO \_\_\_

14.11 Who is/are the present owner(s)/users of resources/infrastructures the sub-program area?

15.0 Loss of Crops, Fruit Trees, and ARSDP Infrastructure  
Will the sub-program result in the permanent or temporary loss of:

15.1 Crops?

15.2 Fruit trees / coconut palms?

15.3 ARSDP infrastructure?

15.4 Any other assets/resources?

16.0 Occupational Health and Safety, Health, Welfare, Employment, and Gender

16.1 Is the sub-program likely to safeguard worker's health and safety and public safety (e.g., occupational health and safety issues)? YES \_\_\_ NO \_\_\_\_\_ If YES state how:.....  
.....

16.2 How will the sub-program minimize the risk of accidents? How will accidents be managed, when they do occur?

16.3 Is the program likely to provide local employment opportunities, including employment opportunities for women? YES \_\_\_ NO \_\_\_\_\_

Provide an additional description for “yes” answers:

- 17.0 Historical, Archaeological, or Cultural Heritage Sites  
Based on available sources, consultation with local authorities, local knowledge and/or observations, could the sub-program alter:
- 17.1 Historical heritage site(s) or require excavation near the same? YES \_\_\_ NO \_\_\_
- 17.2 Archaeological heritage site(s) or require excavation near the same? YES \_\_\_ NO \_\_\_
- 17.3 Cultural heritage site(s) or require excavation near the same? YES \_\_\_\_\_ NO \_\_\_
- 17.4 Graves, or sacred locations (e.g., fetich trees or stones) or require excavations near the same?  
YES \_\_\_ NO \_\_\_
- N.B. For all affirmative answers (YES) Provide description, possible alternatives reviewed and/or appropriate mitigating measures.

**D. RECOMMENDATIONS:**

Based on the above screening results, the following recommendations are made:

- 1) The sub-program has been assigned the environmental category A: Since the parent program has been categorized as a B, this sub-program cannot be funded.
- 2) The sub-program has been assigned the environmental category: B1: Implementation of the environmental mitigation measures as proposed in the Environmental and Social Checklist (with amendments as appropriate) and as per Environmental Guidelines for Contractors and Clause 8 contained in the Bidding Documents will suffice
- 3) The sub-program has been assigned the environmental category B2: The sub-program will require a separate Environmental Impact Assessment to be reviewed and approved by NEMA.
- 4) The sub-program has been assigned the environmental category C: The sub-program does not require any additional environmental work and therefore can be implemented immediately.

In the event that a sub-program requires land acquisition, please prepare and implement a Resettlement Action Plan (RAP) consistent with ARSDP Resettlement Policy Framework.

Please note that civil works cannot commence until the provisions of the RAP have been implemented to the satisfaction of the World Bank and the affected persons.

**SECTION 8: AUTHENTICATION**

I confirm that the information provided herein is accurate to the best of my knowledge

-----  
District/ Municipal Environment Officer

## Annex 2: Environment and Social Mitigation Measures Checklist

Activity: Construction of institutional buildings	Environmental component affected	Nature of environmental concern	Required action /mitigation measure by Contractor
<b>1. Burning of Brick</b> ☐ Brick making ☐ Firewood ☐ Burning of bricks	☐ Soil ☐ Geology ☐ Vegetation	☐ Soil erosion. ☐ Dumping of soil waste material ☐ Uncovered pits ☐ pollution	☐ Sensitize community ☐ Tree planting ☐ Cover pits
<b>2.Site Levelling</b> ☐ Excavations in borrow areas. ☐ Grading to attain right camber	☐ Soil ☐ Human beings ☐ Animals ☐ Geology ☐ Plants	☐ Erosion and sedimentation ☐ Labor accidents. ☐ Silting. ☐ Creates ponds that encourage breeding of mosquitoes	☐ Restore the borrow areas with topsoil ☐ Proper grading of the sites at the right camber ☐ Provide first aid kits. ☐ Soil bunds should be constructed around a single designated area
<b>3. Building</b>	☐ Human beings	☐ Noise ☐ Accidents ☐ Dust	☐ Constructors' Dress ☐ First aid Kits ☐ Protective gear
<b>4. Roofing</b>	☐ Human beings	☐ Accidents	☐ Protective gear ☐ First aid Kits
<b>5. Soak pits, septic tanks and disposal fields</b>	☐ Human beings ☐ Land ☐ Water	☐ Contaminated water ☐ Land acquisition ☐ Disease outbreak ☐ Accessibility of the waste bins, collection points	☐ Community consultation. ☐ Consult with DEO for appropriate siting of waste collection point. ☐ Provide adequate waste collection bins ☐ Conduct hygiene education campaign.
<p>In addition to the above, attention should be taken to include relevant environmental and social considerations in stages below for reasons mentioned:</p> <ul style="list-style-type: none"> <li>▪ <b>Design stage:</b> <i>Reason:</i> Some socio-environmental pacts can be prevented by nature of facility design. For example provision of ramp access for disabled people on buildings.</li> <li>▪ <b>Procurement stage:</b> <i>Reason:</i> It should be a contractual obligation for the contract to fulfill minimum social-environmental requirements such as having in place an HIV Policy, OHS Policy, Gender Policy, etc and implement social- environmental controls prescribed by this ESMF, subsequent EIA or Project Briefs. These are only possible when these requirements are incorporated in bidding documents at tendering stage or in contractors of successful bidders.</li> <li>▪ <b>Operation stage:</b> <i>Reason:</i> Use of buildings or other infrastructure to be supported by this project may have socio-environmental impacts such as fire risk, improper waste management, etc which must be prevented.</li> </ul>			

### **Annex 3: Sample Terms of Reference for EIA**

In case an EIA has to be undertaken for any specific ARSDP, the MoFPED will procure the services of a certified NEMA EIA Practitioner to undertake the EIA study. The following will be the content of the ToR's for this study.

#### **Introduction and Context**

This part will be completed at a time and will include necessary information related to the context and methodology to carry out the study. It will briefly describe the purpose and objectives of ARSDP, and the specific ARSDP for which the EIA is undertaken.

#### **Objectives of EIA study**

- To identify all likely positive and negative environmental impacts due to the specific ARSDP component;
- To identify and evaluate all significant negative environmental impacts, and propose appropriate mitigation measures for the attention of the developer, for incorporation into the final construction and operational phases;
- To propose an environmental management plan for all aspects of the specific project.

#### **EIA study tasks**

The consultant should realize the following:

- Describe the project characteristics, including extent, land requirement, material requirements, construction works, and the beneficiary community;
- Describe the biophysical characteristics of the environment where the project activities will be realized; and underline the main constraints that need to be taken into account at the field preparation, construction works and future project operations;
- Assess the potential environmental and social impacts related to project activities and recommend adequate mitigation measures, including costs estimation.
- Review alternative more cost-effective and environmentally and socially friendlier options for achieving the same objectives,
- Review policy, legal and institutional framework, at national and international level, related to the environment and identify the constraints for best practices in management with appropriate recommendations for improvements,
- Identify responsibilities and actors for the implementation of proposed mitigation measures,
- Assess the capacity available to implement the proposed mitigation measures, and suggest recommendations in terms of training and capacity building and estimate their costs,
- Develop an Environmental Management Plan (EMP) for the project. The EMP should underline (i) the potential environmental and social impacts resulting from project activities (ii) the proposed mitigation measures; (iii) the institutional responsibilities for implementation; (iv) the monitoring indicators; (v) the institutional responsibilities for monitoring and implementation of mitigation measures; (vi) the costs of activities; and (vii) the implementation schedule,
- Public consultations: The EIA results and the proposed mitigation measures will be discussed with populations, NGOs, local administration and other stakeholders impacted by the project activities. Recommendations from this public consultation will be include in the final EIA report.

#### **Structure of the EIA Report**

- Cover page
- Table of contents
- List of acronyms
- Executive summary
- Introduction
- Description of project activities
- Description of environment in the project area
- Description of policy, legal and institutional framework
- Presentation of results of public consultations and disclosure, and proposed social action by the developer;

- Description of methodology and techniques used in the assessment and analyses of project impacts,
- Description of environmental and social impacts of project activities,
- Environmental Management Plan (EMP) for the project including the proposed mitigation measures; the institutional responsibilities for implementation; the monitoring indicators; the institutional responsibilities for monitoring and implementation of mitigation; Summary table for EMP
- Recommendations
- References
- List of persons / institutions met

**Consultant team**

The Consultants will be NEMA -Certified EIA Practitioners or others agreed by NEMA.

#### **Annex 4: Environmental Guidelines for Construction Work**

- 1) These general environmental guidelines on construction work to be undertaken by any Project in Uganda shall apply to the ARSDP construction activities. For certain work sites entailing specific environmental and/or social issues, a specific Environmental and Social Impact Assessment, including an Environmental and Social Management Plan (ESMP), shall be prepared to address the above-mentioned specific issues based on the general environmental guidelines for construction work. In addition to these general Environmental Guidelines, the Contractor shall therefore comply with any specific ESMP for the works he is responsible for. The Contractor shall after being informed by the District Environmental officer here-in referred to as a focal point person (FP) about such an ESMP for certain work sites, prepare his work strategy and plan to fully take into account relevant provisions of that ESMP. If the Contractor fails to implement the approved ESMP as embodied in the contract documents and/or after written instructions by the designated works supervisor, the Client on the advice of the district local government leadership particularly the CAO and based on the authentic reports from the DEO reserves the right to arrange for execution of the missing action by a third party on account of the Contractor.
- 2) Notwithstanding the Contractor's obligation under the above clause, the Contractor shall implement all measures necessary to avoid undesirable adverse environmental and social impacts wherever possible, restore work sites to acceptable standards, and abide by any environmental performance requirements specified in an ESMP where such an ESMP applies.
- 3) Inclusion of environmental and social aspects in the bidding documents and contracts is necessary, including the need for an Environmental Specialist on the team of Supervising Consultant during construction.
- 4) These Environmental Guidelines, as well as any specific ESMP, apply to the Contractor. They also apply to any sub-contractors present on Project work sites at the request of the Contractor with permission from the Client.

#### **General Environmental Protection Measures**

- 5) In general, environmental protection measures to be taken at any work site shall include but not be limited to:
  - (a) Minimize the effect of dust on the environment resulting from earth works, vibrating equipment, construction related traffic on temporary or existing access roads etc. to ensure safety, health and the protection of workers and communities living in the vicinity of work sites and access roads.
  - (b) Ensure that noise levels emanating from machinery, vehicles and noisy construction activities (e.g. excavation, blasting) comply with NEMA standards and are generally kept at a minimum for the safety, health and protection of workers and nearby communities within the vicinity of noise sources.
  - (c) Ensure that existing water flow regimes in rivers, streams and other natural or irrigation channels are maintained and/or re-established where they are disrupted due to works being carried out.
  - (d) Prevent any construction-generated substance, including bitumen, oils, lubricants and waste water used or produced during the execution of works, from entering into rivers, streams, irrigation channels and other natural water bodies/reservoirs.
  - (e) Avoid or minimize the occurrence of standing water in holes, trenches, borrow areas, etc
  - (f) Prevent and minimize the impacts of quarrying, earth borrowing, piling and building of temporary construction camps and access roads on the biophysical environment including protected areas and arable lands; local communities and their settlements. Restore/rehabilitate all sites to acceptable standards.
  - (g) Upon discovery of graves, cemeteries, cultural sites of any kind, including ancient heritage, relics or anything that might or believed to be of archeological or historical importance during the execution of works, immediately report such findings to the Client so that the Ministry of Tourism, Trade and Industry may be expeditiously contacted for fulfilment of the measures aimed at protecting such historical or archaeological resources.
  - (h) In the event that the Contractor encounters chance finds during construction and/or rehabilitation activities, he will contact the appropriate MoES Official overseeing the sub-project with the view to passing on this information to: the Ministry of Tourism, Trade and Industry and the Authority of Research and Conservation of Cultural Heritage.

- (i) Prohibit construction workers from engaging in the exploitation of natural resources such as hunting, fishing, and collection of forest products or any other activity that might have a negative impact on the social and economic welfare of the local communities. Prohibit explicitly the transport of any bush meat in Contractor's vehicles.
    - Prohibit the transport of firearms in Project-related vehicles.
    - Prohibit the transport of third parties in Project-related vehicles.
  - (j) Implement soil erosion control measures in order to avoid surface run off and prevent siltation, etc.
  - (k) Ensure that waste management, sanitation and drinking water facilities are provided in construction workers camps.
  - (l) Ensure that, in as much as possible, local materials are used to avoid importation of foreign material and long distance transportation.
  - (m) Ensure public safety, and meet Ugandan traffic safety requirements for the execution of works to avoid accidents including Ugandan speed limits, and any other traffic restrictions related with construction activities at Project sites.
  - (n) Ensure that any trench, pit, excavation, hole or other hazardous feature is appropriately demarcated and signposted as safety measures.
  - (o) Ensure that casual workers are hired from neighboring communities.
  - (p) Generally comply with any requirements of Ugandan law and regulations.
- 6) Besides the regular inspection of the sites by the supervisor appointed by the Client for adherence to the Contract conditions and specifications, the Client may appoint an environmental inspector to oversee the compliance with these environmental conditions and any proposed mitigation measures. District or Municipal Environmental Officers may carry out similar inspection duties. In all cases, as directed by the Client's supervisor, the Contractor shall comply with directives from such inspectors.
  - 7) No trench of sand shall be left open for more than 7 days, unless duly authorized by the supervisor upon Contractor's request. Trenches and other excavation works shall be demarcated and/or signposted to avoid third party intrusion.
  - 8) General conditions related with topsoil stripping, storage and restoration apply.
  - 9) The Contractor will take measures to dispose of water used for construction activities in a manner that does not affect neighboring settlements.

### **Waste Management**

- 10) All drums, containers, bags, etc. containing oil/fuel/surfacing materials and other hazardous chemicals shall be stored at construction sites on a sealed and/or bonded area in order to contain potential spillage. All waste containers, litter and any other waste generated during the construction shall be collected and disposed of at designated disposal sites in line with applicable Ugandan National waste management regulations.
- 11) All drainage and effluent from storage areas, workshops, housing quarters and generally from camp sites shall be captured and treated before being discharged into the drainage or natural environment system in line with applicable government water pollution control regulations.
- 12) Used oil from maintenance shall be collected, properly stored in sealed containers, and either disposed of appropriately at designated sites or be re-cycled.
- 13) Entry of runoff into construction sites, staging areas, camp sites, shall be restricted by constructing diversion channels or holding structures such as berms, drains, dams, etc. to reduce the potential of soil erosion and water pollution.
- 14) Construction waste shall not be left in stockpiles along the road, but removed and reused or disposed of on a daily basis.
- 15) Where temporary dump sites for clean excavated material are necessary, they shall be located in areas, approved by the Client's supervisor, where they will not result in supplemental erosion. Any compensation related with the use of such sites shall be settled prior to their use.

- 16) Areas for temporary storage of hazardous materials such as contaminated liquid and solid materials shall be approved by the supervisor and appropriate local and/or relevant national or local authorities before the commencement of work. Disposal of such waste shall be in existing, approved sites.

#### **Quarries and Borrow Areas**

- 17) The Contractor shall obtain appropriate licenses/permits from relevant authorities to operate quarries or borrow areas. The location of quarries and borrow areas shall be subject to review and approval by relevant local and national authorities.
- 18) New extraction sites:
- (i) Shall not be located less than 200 m from settlement areas, archaeological areas, cultural sites – including churches and cemeteries, wetlands or any other valued ecosystem component, or on high or steep ground.
  - (ii) Shall not be located in water bodies, or adjacent to them, as well as to springs, wells, well fields.
  - (iii) Shall not be located in or near forest reserves, natural habitats or national parks.
  - (iv) Shall be designed and operated in the perspective of an easy and effective rehabilitation. Areas with minimal vegetation cover such as flat and bare ground, or areas covered with grass only or covered with shrubs less than 1.5m in height, are preferred.
  - (v) Shall have clearly demarcated and marked boundaries to minimize vegetation clearing and safety hazards for third parties.
- 19) Vegetation clearing shall be restricted to the area required for safe operation of construction work. Vegetation clearing shall not be done more than two months in advance of operations.
- 20) Stockpile areas shall be located in areas where trees or other natural obstacles can act as buffers to prevent dust pollution, and generally at a distance from human settlements. Wind shall be taken into consideration when siting stockpile areas. Perimeter drains shall be built around stockpile areas.
- 21) The Contractor shall deposit any excess material in accordance with the principles of these guidelines, and any applicable ESMP, in areas approved by local authorities and/or the supervisor.

#### **Rehabilitation of Work and Camp Sites**

- 22) Topsoil shall be stripped, removed and stored for subsequent rehabilitation. Soils shall not be stripped when they are wet. Topsoil shall not be stored in large or high heaps. Low mounds of no more than 1 to 2 m high are recommended.
- 23) Generally, rehabilitation of work and camp sites shall follow the following principles
- (i) To the extent practicable, reinstate natural drainage patterns where they have been altered or impaired.
  - (ii) Removal of toxic materials and dispose of them in designated sites. Backfill excavated areas with soils or overburden that is free of foreign material that could pollute groundwater and soil.
  - (iii) Ensure reshaped land is formed so as to be stable, adequately drained and suitable for the desired long-term land use, and allow natural regeneration of vegetation.
  - (iv) Minimize erosion by wind and water both during and after the process of reinstatement.
  - (v) Compacted surfaces shall be deep ripped to relieve compaction unless subsurface conditions dictate otherwise.

#### **Management of Water Needed for Construction Purposes**

- 24) The Contractor shall at all costs avoid conflicting with water needs of local communities. To this effect, any temporary water abstraction for construction needs from either ground or surface water shall be submitted to the following community consultation process:
- (i) Identification of water uses that may be affected by the planned water abstraction,
  - (ii) Consultation with all identified groups of users about the planned water abstraction
  - (iii) In the event that a potential conflict is identified, report to the supervising authority
  - (iv) This consultation process shall be documented by the Contractor (minutes of meeting) for review and eventual authorization of the water withdrawal by the Client's supervisor.

- 25) Abstraction of both surface and underground water shall only be done with the consultation of the local community as mentioned and after obtaining a permit from the relevant authority.
- 26) Abstraction of water from wetlands is prohibited.
- 27) Temporary damming of streams and rivers shall be subject to approval by the appropriate water regulatory authority – The Directorate of Water Resources Management. It shall be done in such a way as to avoid disrupting water supplies to communities downstream, and to maintain the ecological balance of the river system.
- 28) No construction water containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses. Similarly, wash water from washing out of equipment shall not be discharged into water courses or road drains.
- 29) Site spoils and temporary stockpiles shall be located away from the drainage system, and surface run off shall be directed away from stockpiles to prevent erosion and pollution.

#### **Traffic Management and Community Safety**

- 30) Location of temporary access roads shall be done in consultation with the local community and based on the screening results, especially in important or sensitive environments. Temporary access roads shall not traverse wetland areas or other ecologically sensitive areas. The construction of any access roads shall be submitted to a prior consultation process with potentially affected communities that will have to be documented (minutes of meetings) for review and approval by the appropriate Local Government entity.
- 31) Upon the completion of civil works, all temporary access roads shall be ripped and rehabilitated.
- 32) Measures shall be taken to suppress dust emissions generated by Project traffic.
- 33) Maximum speed limits for any traffic related with construction at Project sites shall conform to Ugandan regulations or any others put in place for the purposes of execution of works in a safe environment.

#### **Salvaging and Disposal of Obsolete Components Found by Rehabilitation Works**

- 34) Obsolete materials and construction elements such as electro-mechanical equipment, pipes, accessories and demolished structures shall be salvaged and disposed of in a manner approved by the supervisor and in conformity with the disposal regulations in force. The Contractor will agree with the supervisor which elements are to be surrendered to the Client's premises, which will be recycled or reused, and which will be disposed of through approved disposal processes or landfill sites.
- 35) Any asbestos cement material that might be uncovered when performing rehabilitation works will be considered as hazardous material and disposed of at a designated facility.

#### **Compensation of Damage to Property**

- 36) Compensation of land acquired permanently for Project purposes will be handled under Client responsibility based on the provisions of the RPF. However, in the event that the Contractor, deliberately or accidentally, damages property, he shall repair the property to the owner's satisfaction and at his own cost. For each repair, the Contractor shall obtain from the owner/user a certificate that the damage has been made good satisfactorily in order to indemnify the Client from subsequent claims.
- 37) In any case where compensation for inconveniences, damage of crops etc. are claimed by the owner, the Client has to be informed by the Contractor through the supervisor.

#### **Contractor's Health, Safety and Environment Management Plan (HSE-MP)**

- 38) Within 6 weeks of signing the Contract, the Contractor shall prepare an HSE- MP to ensure the adequate management of the health, safety, environmental and social aspects of the works, including implementation of the requirements of these general conditions and any specific requirements of an ESMP for the works. The Contractor's EHS-MP will serve two main purposes:
- 39) The Contractor's HSE-MP shall provide at least
  - (i) a description of procedures and methods for complying with these general environmental management conditions, and any specific conditions specified in an ESMP;
  - (ii) a description of specific mitigation measures that will be implemented in order to minimize adverse impacts;

- (iii) a description of all planned monitoring activities and the reporting thereof; and
  - (iv) the internal organizational, management and reporting mechanisms put in place for such.
- 40) The Contractor's HSE-MP will be reviewed and approved by the Client before start of the works. This review should demonstrate if the Contractor's HSE-MP covers all of the identified impacts, and has defined appropriate measures to counteract any potential impacts.

### **HSE Reporting**

- 41) The Contractor shall prepare bi-monthly progress reports to the Client on compliance with these general conditions, the sub-project ESMP if any, and his own HSE-MP. The Contractor's reports will include information on:
- (i) HSE management actions/measures taken, including approvals sought from local or national authorities;
  - (ii) Problems encountered in relation to HSE aspects (incidents, including delays, cost consequences, etc. as a result thereof);
  - (iii) Non-compliance with contract requirements on the part of the Contractor;
  - (iv) Changes of assumptions, conditions, measures, designs and actual works in relation to HSE aspects; and
  - (v) Observations, concerns raised and/or decisions taken with regard to HSE management during site meetings.
- 42) The reporting of any significant HSE incidents shall be done as soon as practicable. Such incident reporting shall therefore be done individually. The Contractor should keep his own records on health, safety and welfare of persons, and damage to property. It is advisable to include such records, as well as copies of incident reports, as appendixes to the bi-monthly reports. Details of HSE performance will be reported to the Client.

### **Training of Contractor's Personnel**

- 43) The Contractor shall provide sufficient training to its own personnel to ensure that they are all aware of the relevant aspects of these general conditions, any project ESMP, and its own HSE-MP, and are able to fulfil their expected roles and functions. Specific training will be provided to those employees that have particular responsibilities associated with the implementation of the HSE-MP. Training activities will be documented for potential review by the Client.
- 44) Amongst other issues, training will include an awareness session for all employees on HIV-AIDS addressing the following topics:
- What is HIV/AIDS?
  - How is HIV/AIDS contracted?
  - HIV/AIDS prevention.

**Annex 5: Protocol to Manage Chance Finds**

Construction operations may encounter cultural and archaeological resources or chance finds. Construction can also reveal these buried resources, necessitating "salvage archaeology" for their recovery and protection. Once first stages of earthworks show signs of likely presence of archaeological resources, salvage entails quick excavation to remove artefacts or other traces of human settlement before extensive earth-moving continues. As a general construction principle, any archaeological "chance finds" should be handed to the Department of Museums and Monuments in the Ministry of Tourism, Trade & Industry (MITI).

A protocol for managing chance finds developed based on *The Historical Monuments Act, 1967* is provided in Box A7.1 below.

Box A7.1: Suggested protocol to manage "chance finds"

- a) The contractor shall not perform excavation, demolition, alteration or any works that may harm resources of cultural importance without authorization of the Engineering Assistant or officials from the Department responsible for museums and monuments.
- b) In case of chance finds, the Contractor shall mark, cordon and secure the subject site(s) to avoid damage in the course of road construction and immediately notify the Department responsible for museums and monuments.
- c) Opening of a new borrow or quarry site shall be witnessed and inspected by official(s) from the Department responsible for museums and monuments for the first 2 days of site opening. The official(s) shall maintain watching briefs during works, with clear procedures for protection and documentation of any "chance finds" encountered.
- d) The contractor is obliged to provide for and ensure archaeological intervention in case they come across new finds. This involves immediate discontinuation of works and notifying the Department responsible for museums and monuments about any discoveries.
- e) "Chance finds" encountered in presence of official(s) from the Department of Museums and Monuments shall be handed to them for transfer to the national museum.
- f) "Chance finds" encountered in absence of these official shall be handed over to supervising Engineering Assistant, Environmental Officer or District Engineer who would immediately notify officials of the Department of Museums and Monuments.
- g) The Contractor, and supervising engineer shall maintain contact details of the Department of Museums and Monuments to quickly notify it in case chance finds are encountered.

**Annex 6: Record of stakeholder consultation**

Sections present:





- Record of consultations and
- Views from consultations

ATTENDANCE LIST FOR STAKEHOLDER CONSULTATIONS FOR DEVELOPMENT OF THE RPF/ESMF FOR THE ARSDP

Name of agency/stakeholder/community:			
Purpose of consultation (tick appropriate box):	Scoping:	<input type="checkbox"/>	ESIA: <u>ESMF</u> <input type="checkbox"/>
	Sensitisation:	<input type="checkbox"/>	RAP: <u>RPF</u> <input type="checkbox"/>
	Environmental Audit:	<input type="checkbox"/>	Other (specify):
Date: <u>24/10/2013</u>			
Ministry: <u>Education &amp; Sports</u> District:		Municipal Council:	
		Community: <u>Homa School of Nursing</u>	
Project name: Albertine Region Sustainable Development Project (ARSDP) ESMF and RPF development			
Proponent: Uganda Government			
Name of person/ official met:	Designation	Contact (Tel/email)	Sign/ initial
1. <u>ANGIJEAN PACUTHO BETTY</u>	<u>Ag. PRINCIPAL (PRINCIPAL/TOUR)</u>	<u>0772654050</u> <u>angipacw@yahoo.com</u>	<u>AP13</u> <u>Betty</u>
2. <u>KABAGAMBE FRANCIS</u>	<u>ACCOUNTANT HELMUT SCH. OF NURSING EMBAK.</u>	<u>0775-281330</u> <u>kabagaf@yahoo.com</u>	<u>Francis</u>
3. <u>Mulindambwa JN.</u>	<u>Gov. Council co-opted member</u>	<u>0783290721</u>	<u>JN</u>
4. <u>Kalero Elizabeth</u>	<u>MOES</u>	<u>0752610934</u>	<u>E</u>
5. <u>DR. MORO EMMANUEL</u>	<u>Representative of Universities</u>	<u>0772404886</u>	<u>DR. Moro</u>
6. <u>Hon. Kiiza B. DEO</u>	<u>Representative of HDG</u>	<u>0475612095</u>	<u>DEO</u>
7. <u>MUGABE ROBERT</u>	<u>Students Representative</u>	<u>0781847014</u>	<u>MUGABE</u>
8. <u>AMANYA RICHARD</u>	<u>Alumni Representative</u>	<u>0787876632</u>	<u>Amanya</u>
9. <u>Kashwa Pius</u>	<u>Chief- Non tech. staff</u>	<u>0772856712</u>	<u>Pius</u>
10. <u>Katusabe Imveen</u>	<u>Students representative</u>	<u>0778504878</u>	<u>Imveen</u>
11. <u>Muhangi Godfrey</u>	<u>Student representative</u>	<u>0785838357</u>	<u>Muhangi</u>
12. <u>Rev. E. Kyomugisha</u>	<u>Chairperson</u>	<u>0793269985</u>	<u>E. Kyomugisha</u>
13. <u>APANGA CHARLES</u>	<u>CONST. MEMBER'S Representative</u>	<u>0772824808</u> <u>apangucharles@jov.com</u>	<u>APANGA</u>

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ATTENDANCE LIST FOR STAKEHOLDER CONSULTATIONS FOR DEVELOPMENT OF  
THE RPF / ESMF FOR THE ARSDP.

Name of agency/stakeholder/community:			
Purpose of consultation (tick appropriate box):	Scoping:	<input type="checkbox"/>	EIA: ESMF <input type="checkbox"/>
	Sensitisation:	<input type="checkbox"/>	RAP: RPF <input type="checkbox"/>
	Environmental Audit:	<input type="checkbox"/>	Other (specify):
Date: 25/10/2013			
Ministry: EDUCATION & SPORTS		District: KABAROLE	Municipal Council: Community:
Project name: Albertine Region Sustainable Development Project (ARSDP) ESMF and RPF development			
Proponent: Uganda Government			
Name of person/ official met:	Designation	Contact (Tel/email)	Sign/ initial
1. DR MOSES N. TANESIGHE-OMWE	PRINCIPAL	0712286827   mnduhira@gmail.com	
2. CHARLES BANIER PIISO	AG. DEPUTY PRINCIPAL	0782527375 Pided@yahoo	
3. Yahaya Yusuf Walusansa	Academic Registrar	0772 388450 walusansa@gmail.com	
4. Christopher Ssettuba	Bursar	0772447794 ssettubachr@gmail.com	
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# ATTENDANCE LIST FOR STAKEHOLDER CONSULTATIONS FOR DEVELOPMENT OF THE RPF/ESMF FOR THE ARSDP.

Name of agency/stakeholder/community:			
Purpose of consultation (tick appropriate box):	Scoping:	<input type="checkbox"/>	ESM: <b>ESMF</b> <input checked="" type="checkbox"/>
	Sensitisation:	<input type="checkbox"/>	RAP: <b>DPF</b> <input checked="" type="checkbox"/>
	Environmental Audit:	<input type="checkbox"/>	Other (specify):
Date: <b>23<sup>rd</sup>/10/2013</b>			
Ministry: <b>MOLG &amp; MOLHD</b>		District: <b>BULISA</b>	Municipal Council: _____ Community: _____
Project name: Albertine Region Sustainable Development Project (ARSDP) ESMF and RPF development			
Proponent: Uganda Government			
Name of person/ official met:	Designation	Contact (Tel/email)	Sign/ initial
1. Kibaratenda Arthur	Head of Internal Audit	077759878 (kibaratenda@gmail.com)	
2. Kaahwa Robert	District protection officer	0774161233 kaahwa1964@yahoo.com	
3. MURREE BLAIR	DISTRICT PLANNER	0772565123 blairmurree@yahoo.com	
4. Tugume Benard	District Physical Planner	0772414508 tugumebena@gmail.com	
5. Asume Sreji	Ag Dist. Engineer	0392965800 asumeji@gmail.com	
6. Baguma James	Assistant eng. officer	0782932887 Jamesbaguma@gmail.com	
7. MURUNGU MOSES	Ag. Procurement officer	0772429015 murumoses@yahoo.com	
8. MUBIRU RASHID	Dist. Vet. Officer	0772611536 dmubirurasha@gmail.com	
9. Bakikenda Nabalika	Fisheries officer	077850333 nabalikenda@gmail.com	
10. Muhambura Stephen	Ag District Vet Officer	toruhamburastephen@yahoo.com	
11. MUGABO ROBERT	Ag. DDO	0774706086, r.mugabo2008@yahoo.com	
12. AGONBUA N RHONEY	P.H.E.O	0783480957 rhoney.agonbua@yahoo.com	
13. MUGISA James	District Inspector of schools	James2mugisa@gmail.com 0781321443/0752385734	

ATTENDANCE LIST FOR STAKEHOLDER CONSULTATIONS FOR DEVELOPMENT OF THE RPF/ESMF FOR THE ARSDP.

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Purpose of consultation (tick appropriate box):	Scoping:	<input type="checkbox"/>	ESIA: <b>ESMF</b> <input type="checkbox"/>
	Sensitisation:	<input type="checkbox"/>	RAP: <b>RPF</b> <input type="checkbox"/>
	Environmental Audit:	<input type="checkbox"/>	Other (specify):
Date: <b>22<sup>nd</sup> Oct 2013</b>			
Ministry: <b>MOLG</b>		District: <b>BUTUNGA</b>	Municipal Council: <b>BULIKA</b> Community:
Project name: Albertine Region Sustainable Development Project (ARSDP) ESMF and RPF development			
Proponent: Uganda Government			
Name of person/ official met:	Designation	Contact (Tel/email)	Sign/ initial
1. <b>Bamutira Charles</b>	Senior Accounts Asst	0756-067345/0784521154	
2. <b>Asimwe Maxwell</b>	Asst. Eng. Officer WATER	0782110591 / 0753110571	
3. <b>ABIDRA BENION</b>	LAW ENFORCEMENT OFFICER	0775545824	
4. <b>BALEMESA ROGERS</b>	HUMAN RESOURCE OFFICER	0773152643 / 0702545466 rbalesa@yahoo.com	
5.			
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ATTENDANCE LIST FOR STAKEHOLDER CONSULTATIONS FOR DEVELOPMENT OF THE RPF/ESMF FOR THE ARSDP

Name of agency/stakeholder/community:			
Purpose of consultation (tick appropriate box):	Scoping:	<input type="checkbox"/>	ESIA: ESMF <input type="checkbox"/>
	Sensitisation:	<input type="checkbox"/>	RPF: RPF <input type="checkbox"/>
	Environmental Audit:	<input type="checkbox"/>	Other (specify):
Date: 24/10/2013			
Ministry: MOLG		District:	Municipal Council: Community: KABAALA
Project name: Albertine Region Sustainable Development Project (ARSDP) ESMF and RPF development			
Proponent: Uganda Government			
Name of person/ official met:	Designation	Contact (Tel/email)	Sign/ initial
1. TUSIME MOURSEN	MOURSEN	0756789343	
2. ISINGOMA YUSUF	KABAALA	---	
3. MBABAZI PERUHI	Kabaala		MP
4. MUGISA EDWARD	GEN. SEC. ARM. KILEILO	0785456665	
5. FANU KWAKUDI	KABAALA	0119408371	
6. TALEMWA WILLIAM	" "	0777388966	
7. Babyesiza Leonard	" "	0787334505	
8. Kiiza Moses	" "	0777190701	
9. Bwesa George Kilian	Kilegwe	0784515211	
10. Bwesa J Lyas	Kitebwa	0779077623	
11. Kiiza Kam Red	" "	0759700851	
12. Ayebale Robert	Kabaala	07883870	



## ATTENDANCE LIST FOR STAKEHOLDER CONSULTATIONS FOR DEVELOPMENT OF RPF/ESMF FOR THE ARSDP.

Name of agency/stakeholder/community:			
Purpose of consultation (tick appropriate box):	Scoping:	<input type="checkbox"/>	ESIA: <i>ESMF</i> <input checked="" type="checkbox"/>
	Sensitisation:	<input type="checkbox"/>	RAP: <i>RPF</i> <input checked="" type="checkbox"/>
	Environmental Audit:	<input type="checkbox"/>	Other (specify):
Date: <i>24/10/2013</i>			
Ministry: <i>MOHC</i>		District:	Municipal Council: <i>KABAALE</i>
Community: <i>KABAALE</i>			
Project name: Albertine Region Sustainable Development Project (ARSDP) ESMF and RPF development			
Proponent: Uganda Government			
Name of person/ official met:	Designation	Contact (Tel/email)	Sign/ initial
1. <i>Byarukanga Julius</i>	<i>KABAALE</i>	<i>0753110601</i>	<i>[Signature]</i>
2. <i>AKONDEZE Willy</i>	<i>KABAALE</i>	<i>0777415548</i>	<i>[Signature]</i>
3. <i>Kalisa Julius</i>	<i>Kabaale</i>	<i>0777388971</i>	<i>[Signature]</i>
4. <i>BACENGA Richard</i>	<i>KABAALE</i>	<i>0783147963</i>	<i>[Signature]</i>
5. <i>KATUSIME GODFREY</i>	<i>KABAALE</i>	<i>0777616773</i>	<i>[Signature]</i>
6. <i>SINGOMA James</i>	<i>C/Person, Kabaale LC1</i>	<i>0777386106</i>	<i>[Signature]</i>
7. <i>TUMWESIGE JOHANN</i>	<i>secretary baale LC1</i>	<i>0773949327</i>	<i>[Signature]</i>
8. <i>HON ODAGA SKIZIN</i>	<i>Councillor</i>	<i>0795457482</i>	<i>[Signature]</i>
9. <i>KABYONA KYRIL</i>	<i>KABAALE</i>	<i>0779574213</i>	<i>[Signature]</i>
10. <i>ABIGABA KENNEDY</i>	<i>KABAALE</i>	<i>0756839719</i>	<i>[Signature]</i>
11.			
12.			



**b) Views from consultations**

<b>Agency/stakeholder</b>	<b>Views</b>
<p><b>Ministry of Local Government , MoLG</b> Date: 29 Nov 2013 <b>Respondent(s):</b> Eng. Paul Kasule-Mukasa Address: pkmukasa@yahoo.com</p>	<p><b>Purpose of consultation:</b> To establish whether MoLG has an Environmental Officer and Sociologist to be responsible for ARSDP project and their capacity needs.</p> <p><b>Respondent views:</b> Currently there is no Environment Officer in MOLG but there are inspectors, who were trained and gazetted by NEMA as Environmental Inspectors. These however do not practice environmental management and are by and large financial inspectors. It should therefore be prudent to propose a position in the PST of the MOLG to handle the ARSDP programme. If it is not agreeable/feasible, then the PST in MLHUD handles ARSDP environmental affairs.</p>
<p><b>Ministry of Education &amp; Sports, MoES</b> Date: 27 Nov 2013 <b>Respondent(s):</b> Ms. Doroty Sekimpi, ARSDP Project Coordinator Address: dorothysekimpi@yahoo.com</p>	<p><b>Purpose of consultation:</b> To establish if MOES has an Environmental Officer or Sociologist to handle ARSDP project and their capacity needs.</p> <p><b>Respondent views:</b> MOES has an Environmental Focal Person (Mr. Sempala 0772-395245) who is also Assistant Commissioner Business, Technical and Vocational Education and Training (BTVET). These is however a capacity gap in regard to social safeguards, since unlike for environmental aspects, no person handles this in the ministry.</p> <p>This focal person and the project coordinator need environmental training in EIA processes in Uganda, conduct of EIA as well as World Bank safeguard policies.</p> <p>Specifically for BTVET component, courses identified by the Energy Sector include Electrical engineering courses, Mechanics engineering courses, Firefighting, Lifting Operations, Pipeline fitting, certified driving, welding, cementing, wireline logging, drilling, rig floor men/derrick men skills and training for, HSE Superintendents/supervisors. These should raise skills base for local people in oil and gas services.</p>
<p><b>National Environment Management Authority, NEMA</b> Date: 28 Nov 2013 <b>Respondent(s):</b> Waiswa Ayazika Arnold Director, Environmental Monitoring &amp; Compliance</p>	<p><b>Purpose of consultation:</b> To discuss the following questions</p> <ol style="list-style-type: none"> <li>1. ESMF are prepared when specific details of a project are not yet ascertained, hence it is largely a guiding tool to identify general possible impacts and mitigation options. It also provides screening guidance to identify projects that may need EIA or not. Does this complement NEMA's effort towards regulatory compliance?</li> <li>2. What has been NEMA's experience regarding use of EMSFs in environmental management during projects implementation?</li> <li>3. Do find that local government environmental offices use ESMFs effectively?</li> </ol>

<p>Address: NEMA House, 1st Floor Plot 17,19&amp; 21 Jinja Road, Email:wayazika@nemaug.org</p>	<p><b>Respondent views:</b> Environmental Officers at District level have skills and capability to undertake project screening, initiate and oversee environmental impact process for projects in their areas of control. ESMF and RPF would complement NEMA effort on environmental protection rather than conflict with EIA processes.</p>
<p><b>HOIMA DISTRICT</b> Date: 16<sup>th</sup> Oct 2013</p> <p><b>Development Interventions Prioritized for the ARSDP Project</b></p>	<p>From the consultations with Hoima Local Government Officials it was noted that; <b>The focus of interventions is in the following areas:</b></p> <ul style="list-style-type: none"> <li>• Rehabilitate 2134 km of district roads</li> <li>• Remove road bottlenecks by repairing/ swamp filling 2 bridges</li> <li>• Construct lakeshore access roads to Runga landing sites</li> </ul> <p><b>Production</b> <b>The pillars of Hoima District strategy for agricultural and rural development for poverty alleviation are:</b></p> <ul style="list-style-type: none"> <li>• Improve on-farm productivity</li> <li>• Switch production patterns in the direction of higher value farm products and</li> <li>• Increase the level of commercialization of men and women farmers</li> </ul> <p>Through:</p> <ul style="list-style-type: none"> <li>○ Provision of agricultural/livestock advisory services, diseases and pest control</li> <li>○ Provision of water for production to farmers especially in the water stressed areas</li> </ul> <p><b>Natural Resource Management</b></p> <p>Prepare Physical Development Plans (structure and detailed plans) and satellite imagery of developing Rural Growth Centres and Oil Producing areas in Kyangwali TC, Wairagaza, Kyarusheisha, Kabaale, Buseruka, Butema, Kiziranfumbi and Buhimba Procurement of a set of duo frequency RTK GPS for surveying land and physical planning surveys and Blue printing machine and Construction of land offices.</p>
<p><b>Environment</b></p>	<p><b>Key Interventions</b></p> <p>The project design should incorporate the following key activities either as standalone or integrated in the identified infrastructural projects</p> <ul style="list-style-type: none"> <li>▪ Environment &amp; social screening of projects using the Environment &amp; Social Screening form</li> <li>▪ Ensure Environmental &amp; Social mitigations</li> <li>▪ Develop preparation of environment &amp; Social management</li> </ul>

	<ul style="list-style-type: none"> <li>▪ The Plans Resettlement policy framework</li> <li>▪ Evaluation of project impacts and preparation of entitlement matrix</li> <li>▪ Environmental implementation monitoring and follow up</li> </ul>
<p><b>To ensure that the Community benefits from the ARSDP project</b></p>	<p><b>The District intends to engage in Community Mobilization in regard to: Cross Cutting Issues</b></p> <p>After thorough analysis and assessment we have identified the activities below for the successful project:</p> <ul style="list-style-type: none"> <li>▪ To carry out Community mobilization and empowerment of the community to understand the project and fully participate in project activities: Be sensitized of their roles and responsibilities, about HIV/AIDS, Gender concerns in the project, constant preservation of our positive cultural norms and values, environment, Human Rights, and good governance. Ignoring the aforementioned aspects will lead to project failure and endanger the community as well.</li> <li>▪ To conduct apprenticeship trainings for the vulnerable groups such as the youths, women, elderly and PWDs to enable them benefit from the project.</li> <li>▪ Public works programme by the community during the project such as; <ul style="list-style-type: none"> <li>○ Public road construction and maintenance by the community members,</li> <li>○ Since the project will have some environmental degradation, public tree planting be strongly considered</li> </ul> </li> <li>▪ Formation of project management committees for the different projects under the project.</li> <li>▪ Training of the formed project management committees in their roles and responsibilities and contribution to project sustainability.</li> <li>▪ Routine Inspection of work sites for occupational safety and health.</li> <li>▪ Advocacy for the project and the vulnerable groups affected by the project.</li> </ul>
<p><b>Land Acquisition &amp; Grievances Experienced in the District</b></p>	<p><b>The case of Kaabale Oil Refinery:</b> the 22 square kilometer oil refinery has come up with so many controversial issues that include;</p> <ul style="list-style-type: none"> <li>• The policy on Resettlement was not very clear, the districts are not aware of Government's plan on RAPs because most activities have spear headed from the centre which procures the consultants and even reports are taken to centre the districts are only given courtesy calls without much involvement.</li> <li>• The first option of giving cash compensation as opposed to resettlement has created a lot of domestic conflicts across the board and it is becoming a pertinent issue. Men are abandoning families and getting engaged to other women. Majority of the affected people are poor peasant farmers who have never handled millions of shillings yet the project is now promising a hundreds of millions.</li> <li>• The district is already experiencing so many abandoned families and the issue of resettling these people has become a big problem to the district.</li> <li>• There was no adequate probing about these people's background because most of the affected people are not the indigenous Banyoro, majority are Congolese and Alur from Congo who are semi-permanent settlers and are prone to movements any time. During the RAP studies, the district was not involved; MEMD came with defined terms of reference and seemed to be time bad. Government also hurriedly pushed for RAP process because there were sentiments that some people were against the refinery.</li> <li>• The RAP studies were carried out before the Baseline and Environmental &amp; Social Impact Assessment studies were carried out. Given that this is a fragile eco-system environment we are likely to face a disaster if systems are not streamlined.</li> </ul>

	<ul style="list-style-type: none"> <li>• In case of oil spillage that will be the end of the land as this will affect the soil and water, what about the animals? Will they be resettled too! What about oil waste disposal management how will it be handled? How do we live in harmony with all natural resources without total extinction?</li> <li>• These calls for concerted efforts from all stakeholders especially the local governments and communities and necessary studies should carefully be carried out before interventions are put in place.</li> </ul> <p><b>Way forward for the Kabaale Oil Refinery Issues:</b></p> <ul style="list-style-type: none"> <li>• Minister in Charge of Bunyoro Affairs in the Office of Prime Minister was approached and agreed to review the whole process by reviewing the policy,</li> <li>• involving all stakeholders including civil society organizations,</li> <li>• the issue of payment in cash be reviewed as it is unfair because it may make the affected more destitute;</li> <li>• create an institutional framework to handle to handle Oil and Gas issues within the district; streamline the Oil &amp; Gas activities within the district development plans;</li> <li>• Oil &amp; Gas issues should stop being consultant oriented where the MEMD hires consultants without involved of the district.</li> </ul>
<p><b>Mechanisms for improved future management of similar projects</b></p>	<p>So many interventions/processes are going on within the district. In terms of environment the area has a number of fragile eco-systems like Lake Albert where most of the oil drilling is going to take place, the rift valley is an interesting eco-system and has a lot of implications, the game reserves which have been in existence for so many years all these need to be considered during implementation of projects especially those projects that require land acquisition. However, regarding the issues of Oil &amp; Gas the district has not been very much involved.</p> <ul style="list-style-type: none"> <li>▪ There is a big gap between the centre and districts and during actual project implementation as the districts have no budgets yet they have formulas for monitoring and are supposed to back-up the consultants.</li> <li>▪ Hoima District is overwhelmed with Oil &amp; Gas activities from various sectors and investors coming to the district headquarters at the same time and requesting to see the same officials.</li> <li>▪ However it was reported that the consultations are usually on short notice and for the purposes of proving that the districts were consulted but without much in depth involvement and planning.</li> <li>▪ There is lack of coordination in handling Oil &amp; Gas activities, there is need to establish a coordination office that can effectively handle and advise on the Oil &amp; Gas issues if it is CAOs' office let it be known.</li> <li>▪ There is need to specifically sensitize both the technical and political officials about the new projects and go to communities.</li> <li>▪ The district has a number of challenges to handle the projects, no budgets for monitoring, no vehicles, no equipment only have paper and pen.</li> </ul>
<p><b>Available Systems/Measures to address Safeguard Issues</b></p>	<ul style="list-style-type: none"> <li>• There are some technical staff such the like the District Environment Officer, Physical Planner, Community Development Officer, District Planner. However the district has challenges in terms of; under staffing, inadequate equipment, and lack of exposure.</li> </ul>
<p><b>District Capacity to Handle Safe guard Issues</b></p>	<p>The oil and gas industry is new in the region therefore the Local Government Districts should be empowered in terms of knowledge and skills to handle challenges that will come with new industry. There is lack of enough knowledge on social and environmental safeguard issues. The district needs to empower in terms of enough personnel, equipment, logistics and knowledge regarding safeguard issues. From the findings in</p>

	<p>the table below it clearly demonstrates that districts lack the capacity to handle social and environmental safeguard issues that come with development interventions</p> <p>Structural related challenges such lack of budget to carry out monitoring activities, the physical planning office lack equipment has only paper and pen, there is no head of Natural Resources, not all positions are filled in the Forestry department as elaborated in the following table.</p>
	<p><b>Monitoring and Supervision</b></p> <p>Logistical support to all district departments to enable them embraces the requirements that will come with the ARSDP project as per the attached in annex A.</p>

<p><b>BULIISA DISTRICT</b> Date: 18<sup>th</sup> -21<sup>st</sup> Oct 2013</p>	<p><b>The district of Bullisa is faced with following Challenges</b></p> <ul style="list-style-type: none"> <li>▪ Working conditions are not favorable, it's a hard to reach place and hard to stay</li> <li>▪ Housing accommodations</li> <li>▪ Food is every expensive and markets are also very far</li> <li>▪ Schools are of low quality</li> <li>▪ There is no electricity, it makes delivery hard</li> <li>▪ Road network is very poor</li> <li>▪ No health services, there is only one Health Centre 4</li> <li>▪ Water is salt, not safe</li> <li>▪ Source of income were all taken up by URA for instance Landing Sites among others</li> </ul>
<p><b>Development Interventions Prioritized for the ARSDP Project</b></p>	<p><b>Priorities for ARSDP project include;</b></p> <ul style="list-style-type: none"> <li>• Physical Planning of the whole district</li> <li>• Structural planning</li> <li>• Carry out detailed survey of Town Boards such as; Kihungya, Wanseko, Bugoigo, Ngwendo, Biiso, Kabolya and Walukuba.</li> <li>• Roads</li> <li>• Markets</li> </ul>
<p><b>To ensure that the Community benefits from the ARSDP project</b></p>	<ul style="list-style-type: none"> <li>▪ To carry out Community mobilization and empowerment of the community to understand the project and fully participate in project activities: Be sensitized of their roles and responsibilities, about HIV/AIDS, Gender concerns in the project, constant preservation of our positive cultural norms and values, environment, Human Rights, and good governance. Ignoring the aforementioned aspects will lead to project failure and endanger the community as well.</li> <li>▪ To conduct apprenticeship trainings for the vulnerable groups such as the youths, women, elderly and PWDs to enable them benefit from the project.</li> <li>▪ Public works programme by the community during the project such as; <ul style="list-style-type: none"> <li>○ Public road construction and maintenance by the community members,</li> <li>○ Since the project will have some environmental degradation, public tree planting be strongly considered</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>▪ Formation of project management committees for the different projects under the project.</li> <li>▪ Training of the formed project management committees in their roles and responsibilities and contribution to project sustainability.</li> </ul>
<b>Land Acquisition &amp; Grievances Experienced in the District</b>	Buliisa District has not experienced any land acquisition issues since the district has not carried out any major project involving land acquisition. However they have resolved grievances of land acquisition of communities whose land was acquired for Oil exploration activities by the Oil Companies such as Tullow.
<b>Available Systems/Measures to address Safeguard Issues</b>	<b>Some staff are available such as;</b> Personnel and Nature Resource Officer, Surveyor, Fiscal Planner- Acting, Environmental Officer- Acting Forestry officer-Assigned, Valuer, Lands Officer, Cartographer District Natural Resource Officer . the main challenge is that 90% of the staff are on study leave and when they go they are deleted from the Payroll.
<b>District Capacity to Handle Safe guard Issues</b>	<b>Much as the District has some staff to handle safeguard issues they lack the required capacity in terms of knowledge, equipment and office space as shown in the detailed capacity identification table.</b>

<b>BULIISA TOWN COUNCIL</b> Priority Interventions for ARSDP Project	<p>Markets, Extension Administration Block, Opening Town Council Roads and Water service extension.</p> <p>Buliisa is not only hard to reach but also hard to stay area and this is considered as the main reason why Buliisa cannot retain staff. Several challenges were mentioned to include lack of accommodation, not sufficient food, the markets are basic that they do not have a variety of food, local restaurants have only staple food which is very expensive, transport within the town council is not easy as there is no transport for the office, no computers all the accounts work is done manually, office space is inadequate, most of the workers are under qualified.</p>
<b>Buliisa Town Council Capacity to Handle Safe guard Issues</b>	<p>Due to inadequate staff the capacity to handle environment and social safeguards is wanting because most staff are in acting capacities while others are on training.</p> <p><b>Capacity challenges</b></p> <ul style="list-style-type: none"> <li>▪ Recruitment, they don't have authority to recruit new staff, it has to be done at the ministry, even when the staff is a junior staff.</li> <li>▪ Recruitment procedures are not standardized especially for the council</li> <li>▪ Both staff at the District and Council are under qualified as compared to the requirements</li> <li>▪ Facilities to enable them work are not available, for instance standard of living is very expensive as compared to earnings for instance transport is hard (They have to foot to and from work every day for long distances), housing facilities are hard to get, water, health centers, markets among others, this has made other staff to resign from work because of the hard conditions which cannot be sustainable.</li> </ul> <p><b>Strategy/ mechanisms</b></p> <ul style="list-style-type: none"> <li>▪ There is need for the extension of the administration block for the missing offices, because they are piled in one small office, therefore making the effectiveness of work poor.</li> <li>▪ Training of staff in relevant fields</li> <li>▪ Motivation of the staff to enable them work because Buliisa is a difficult to stay place</li> <li>▪ Recruitment of missing staff to have the impact of work in the community</li> <li>▪ Empower staff to mobilize and sensitize the communities, because there are difficult to work with.</li> <li>▪ Provide, working equipment, like desks, chairs, cabinet, shelves, vehicles, motorcycles.</li> </ul>

*Note: Hoima School of Nursing and Midwifery were consulted because it was initially anticipated it would benefit from the proposed ARSDP, but this has been revised and the nursing institution is no longer part of ARSDP.*

<p><b>HOIMA SCHOOL OF NURSING AND MIDWIFERY</b> Date: 17th October 2013</p> <p><b>Development Interventions Prioritized for the ARSDP Project</b></p>	<p>Hoima school of Nursing and Midwifery is now 3 years old, it started on 14th, 06, 2010. They have now 405 population and so far 104 students have graduated.</p> <p>Priority developments for ARSDP project include; Expansion of the school infrastructure since they are currently squeezed in a place yet the student intake is increasing by year. These include; staff quarters, classrooms, library, computers, stores, laboratories and equipment.</p> <p>Transport for practicals in form of a bus which take about 100 nurses to Health Centres in Kwangwali, Kagadi, Kabwoya, Kikube, Buliisa, Masindi and Kiryandongo.</p>
<p><b>To ensure that the Community benefits from the ARSDP project</b></p>	<p><b>Benefits to the community</b></p> <ul style="list-style-type: none"> <li>• The health centers where students carry out their practicals, there are outreaches. Communities are taught about hygiene and sanitation, immunization etc</li> <li>• Carry out health education talks which all are done freely</li> <li>• Teach communities to make idea homes thus pit/latrines, dust bins etc</li> <li>• Carry out community environment cleaning of every week</li> </ul>
<p><b>Available Systems/Measures to address Safeguard Issues</b></p>	<ul style="list-style-type: none"> <li>• Securing the title for the current land of the school from the Ministry of Gender, labour &amp; Social Development.</li> <li>• Have 6.5 hectares of land donated by the community for expansion and 100 hectares for farming purposes.</li> <li>• Already the plan for expansion and setting up structures are the final stages</li> <li>• They have a number of staff and only three staff (Principal, senior tutor, clinic instructor) are on the Government pay roll and others are paid by the institution.</li> </ul>
<p><b>Capacity to Handle Safe guard Issues</b></p>	<p>No capacity to handle environmental and social safeguard issues since even no ESIA for the proposed new site was undertaken this was because they did not know that it was a requirement but they are ready to engage a consultant to do so before the implementation of the project. Also because their core concern is all about training so they don't post of an environmentalist on their structure.</p> <p>Capacity empowerment and needs are elaborated in the table below.</p>
<p><b>UGANDA TECHNICAL COLLEGE KICHWAMBA</b> Date: 23rd October 2013</p>	<p>The college focus on engineering courses as follows thus others will be included later Higher Diploma in; Mechanical Engineering, Electrical Engineering and Civil Engineering</p> <p>Diplomas in; Civil Engineering, Water Engineering, Architecture, Electrical Engineering, Mechanical Engineering, Information and Communication Technology</p>
<p><b>Development Interventions Prioritized for the ARSDP Project</b></p>	<ul style="list-style-type: none"> <li>• Land is available worth are 82 acres. Less than 10% of it is in use – all of it is fenced, wall at the front and chain link else where (80.15 acres = 32.14 Hectares) in the name of Uganda Land Commission like most of the Institutions.</li> <li>• The Plan is to put up an administration block, the current block to remain for the registers and we tend to build storeyed building. All technical schools want the same plan – spearheaded by Bushenyi.</li> </ul>

	<ul style="list-style-type: none"> <li>The college follows the MoES health policy- encourage VCT, don't discriminate, male circumcision, encourage behavior change through counseling and talk shows.</li> </ul>
<b>To ensure that the Community benefits from the ARSDP project</b>	<p><b>Benefits of the college to the community</b></p> <ul style="list-style-type: none"> <li>They send student with the college</li> <li>Staff are local both teaching and non-teaching staff</li> <li>Products used at the college are bought from the local markets</li> <li>Provide a playground because it is the best play ground in the district</li> <li>Provide study tours for students for free</li> </ul> <p><b>Other plans in future</b></p> <ul style="list-style-type: none"> <li>Open the gate for the community members to come in and benefit from the resources of the college</li> <li>Provide skilled training for the community during vocation</li> <li>Give opportunities to the communities to build hostels for students so that the school can concentrate on academics</li> <li>Build a dining hall which can accommodate the college population.</li> </ul>
<b>Available Systems/Measures to address Safeguard Issues</b>	<ul style="list-style-type: none"> <li>Now have 2 old TATA lorries, 2 old station wagons, 1 Mercedes Benz, 1 Land Rover Defender, 1 Corolla for training</li> <li>The college has Staff Development Programs, when a need is identified, the college supports them to go for further studies, so far one staff had just completes and 7 more staff were still enrolled for the study. However, there is need for all staff to upgrade in different capacity in regard to the courses offered and yet to come as per college plan.</li> </ul> <p><b>challenges</b></p> <ul style="list-style-type: none"> <li>Need to upgrade the sewerage system</li> <li>There is still absenteeism of students</li> <li>Waste management is not done well, they still use the old system of pits and burning, therefore there is need for capacity to manage the wastes in a modernized way</li> <li>Need to advance the clinic to a medical centre</li> <li>Don't have a library - now using some block meant to be a workshop, so students do not do the training at college, only learn from industrial training.</li> <li>There is need for a college environment management policy</li> </ul>
<b>Capacity to Handle Safe guard Issues</b>	No capacity to handle environmental and social safeguard issues and the institution is doing very badly in terms of solid waste management. However, Environmental Engineering is one of the new courses the College is intending to introduce given the raising demand of environmental engineers especially in the Oil & Gas industry.

<b>UGANDA PETROLEUM INSTITUTE KIGUMBA UPIK</b>  Date: 22 October 2013	Have enough land of an allocation of 465 hectares given to them by Kigumba Cooperative College. A title is being processed right now for both UPIK and Kigumba Cooperative College. Already have a Master plan for; staff houses, student hostels, administration block, training block and waste management site. Have already done ESIA for the entire plan. Have a strategic plan (2014-2019)
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<b>Capacity to handle Safe guard issues</b>	Yes since they are training students to handle Oil & Gas related activities where environmental and social issues are paramount.
<b>Community Benefits</b>	Employment creation for local communities Provision of logistics to the Institute Provide a big market for food.
<b>Capacity Needs</b>	Training of Trainers for International Certification Certification of Students through partnership and collaboration.

<p><b>KABAAL COMMUNITY</b> Date: 24<sup>th</sup> October 2013</p>	<p><b>Benefits so far since the gazetting of the refinery project land</b></p> <ul style="list-style-type: none"> <li>• Construction of Roads thus transport system has improved because there now many vehicles for transport as compared before</li> <li>• More business and population has increased because of the development changes in the area.</li> <li>• Improved standards of living</li> <li>• Built health centers for instance Kyehoro Health Centre III</li> <li>• Built schools for instance Kaiso Primary School and Kyehoro Primary School</li> </ul> <p><b>Negative impacts</b></p> <p><b>Roads</b></p> <ul style="list-style-type: none"> <li>• Never employed local community, they are using people from Kampala, even those doing petty work like lifting stones</li> <li>• Evaluation was not good, permanent houses were not valued properly – a house worth 30 million was valued at 2 million.</li> <li>• They came and counted what is on your land – houses and crops without even telling the amount worth properties, we only saw the rates after disclosure</li> <li>• No grievance mechanism in place like an office or the Grievance officer –GO to handle compliant issues</li> <li>• The disclosure process was not fair, because most people were scared and had to accept whatever was disclosure to them even if it was not worth their land and properties.</li> </ul> <p>For instance Before payments</p> <ul style="list-style-type: none"> <li>- They came with lawyers, first you go to the chairman's desk</li> <li>- Desk 1 – signed</li> <li>- Desk 2 – Disclosure (showing the amount you are to receive)</li> <li>- If you agree with the amount you sign, if you are not satisfied you move to the Lawyer's desk</li> <li>- The lawyer convinces you to sign saying that if you refuse you will miss out</li> <li>- Your photo is taken on wall with a number</li> <li>- Then you are given a receipt showing that you have accepted the indicated amount but we are not yet paid.</li> <li>- Those who refuse to sign are told that they alone cannot fail government projects for development</li> </ul> <ul style="list-style-type: none"> <li>• During the RAP we were told that they will come to every house but we waited and they never appeared. They raised peoples hopes that the refinery is going to give a lot of money, For instance Minister Peter Lokeris told us not to sell -1 acre – 7 million</li> </ul>
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	<p>Banyankole Government is now paying 3.5 million. They came with RDC and LC 5, so we believed to sell at 3.5 million</p> <ul style="list-style-type: none"> <li>• Those who were near the refinery were told that government will take them very far, so most people got scared and all accepted to compensate them with cash.</li> <li>• They came sensitized us and people were forced to use one bank, Crane Bank for the Refinery and Post Bank for the Road (Why force us in a bank we don't want when we have accounts in other banks – that's a way of squeezing us). For 10 million – you find 9.5 million, Transport costs – 15000/= X 60.</li> <li>• For us who have not yet signed let them come and we agree on the rates. Central Government only came in 2011</li> </ul> <ul style="list-style-type: none"> <li>- Toilet – 40 feet 4000/= per feet</li> <li>- Build 120,000/=</li> <li>- They valued it at 60,000/=</li> <li>- We will end up not bidding toilets</li> <li>- Value of cabbage in 2011 was 200/= right now in 2013 year of payment it is at 800/=</li> </ul> <p>Nyakasinini – plot valued at 3.5 million  Majego – 2 million  Nyachira – 3 million  Kyapulon – 7 million per acre  Some plots differ in rates  The LCs are compromised  2 acres – 40ft by 80ft sugarcane paid 8,750/=</p> <ul style="list-style-type: none"> <li>• They only call chairpersons on phones to inform people about meetings – sometimes the chairpersons only tell their friends and relatives</li> <li>• They keep informing people not to grow crops because the refinery is coming any time Children cannot even go to school because people can no longer grow cassava to sell</li> </ul> <p><b>Strategies/ Mechanisms</b></p> <ul style="list-style-type: none"> <li>• Government needs to come down here and have a negotiation meeting with people</li> <li>• Government or institutions concerned need to teach people about the prices of land and properties and how they are valued</li> <li>• There is need to use comparison prices because its now three years since the valuation was done and things and prices have changed</li> <li>• Communities were not well sensitizes about issues of land taking and the refinery construction and what we have to do. Most cases information was got from speculators and we didn't know who to be and to follow.</li> <li>• We need to be informed about meeting early than coming abruptly, sometimes the chairman is called on phone and he picks a few people who don't really comprise the whole community and even raise their issues</li> </ul>
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**MINUTES OF THE MEETING HELD ON 14<sup>TH</sup> NOVEMBER 2013 IN THE MINISTRY OF LANDS, HOUSING AND URBAN DEVELOPMENT BOARDROOM TO REVIEW THE RESETTLEMENT POLICY FRAMEWORK (RPF) AND ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF) FOR THE ALBERTINE REGION SUSTAINABLE DEVELOPMENT PROJECT (ARSDP)**

**Members present**


1	Margaret Lwanga	Environment Specialist/ USMID/ CHAIRMAN	MoLHUD
2	Rosemary Mukite	Principal Urban Office	MoLHUD
3	Bogere Steven	Senior Urban Officer	MoLHUD
4	Lammeck Kajubi	Consultant	
5	Elizabeth Aisu	Consultant	
6	Grace Balikowa	Consultant	
7	Olowo Steven	Urban Office	MoLHUD
8	Maria Nanteza	Geographer	MoLHUD
9	Nampijja Prossie	Senior Urban Officer	MoLHUD
10	Nassuna Jacquilyne	Sociologist /PPD	MoLHUD
11	Gilbert Kiracho	M&E SPECIALIST/ SECRETARY	MoLHUD

**Agenda**

1. Opening prayer
2. Self-introductions
3. Communication from Chair
4. Presentation and discussion of the Draft ESMF
5. Presentation and discussion of the Draft RPF
6. Way forward

Minute	Issue	Action
01/11/13	<b>Opening Prayer</b> The Chairman called the meeting to order at 03.00pm. She welcomed members and opening prayer was said.	All to note
02/11/13	<b>Self-introductions</b> Self-introductions were made by members present.	All to note
03/11/13	<b>Communication from the Chair</b> The Chair informed the meeting that: <ol style="list-style-type: none"> <li>1) The resettlement policy framework (RPF) and environmental and social management framework (ESMF) were very important for the preparation of the Albertine Region Sustainable Development Project (ARSDP). The delay in completing the documents was, therefore, affecting its implementation;</li> <li>2) The draft reports were circulated early to members so as to review and generate comments;</li> <li>3) The meeting would be completed in less than 2 hours.</li> </ol>	All to note

Minute	Issue	Action
04/11/13	<p><b>Presentation and discussion of the Draft ESMF for ARSDP</b></p> <p>The consultant presented the draft ESMF report to which the comments and concerns below were raised:</p> <ol style="list-style-type: none"> <li>1) Social issues were part of the activities considered by the consultant but they are not reflected in the report. The social issues have to be addressed in the plan. The consultant, therefore, needs to come up strongly to show that the issues will be addressed in the RAP.</li> <li>2) The screaming in chapter 8 should take care of the social aspects;</li> <li>3) In 9.2 include CDOs to help improve on the social aspects;</li> <li>4) Include a budget for implementing SMF;</li> <li>5) Photos from the study areas should be included in the report;</li> <li>6) The coverage of the study should be Limited to the area that will be funded by the World Bank;</li> <li>7) 4.10 is not triggered</li> <li>8) GRM should come after stakeholder consultation and analysis</li> <li>9) Dates for stakeholder consultations need to be included in the report</li> <li>10) Document seems very big and my require reducing</li> <li>11) The Local Government Act, the physical planning Act and land amendment Act are not included in among the laws in the report yet environment is strongly mentioned in these Acts.</li> <li>12) The report needs to provide more guidance on how to determine impact significance. The guidance in the report not enough</li> <li>13) The report needs to include roles of other offices other than the environment offices to ensure enforcement so as to move the process forward.</li> <li>14) Report needs to show the level at which certification of works will be done to ensure that environment is taken care of in the procurement process. It should ensure that the contractors handle the environmental issues.</li> <li>15) Capacity of players at various levels needs to be enhanced by providing a checklist so that the non-environmentalist know what to do;</li> <li>16) Report needs to provide for people who may not be covered by the work place policy;</li> <li>17) Report should provide for How to Soils in Bulisa can provide materials for construction</li> <li>18) The national land use policy which is in the stages of implementation should be included among the policies;</li> <li>19) The negative impacts on fauna should be mentioned in the report.</li> <li>20) Masindi district &amp; municipal council have been dropped.</li> </ol>	<p>All to note</p> <p>Consultant</p>
05/11/13	<p><b>Presentation and discussion of the Draft ESMF for RPF</b></p> <p>The consultant presented the draft RPF report to which the comments and concerns below were raised:</p> <ol style="list-style-type: none"> <li>1) Report needs to show that occupants of land would get their rightful compensation if the projects implemented include the acquiring of land;</li> <li>2) Report needs to show how disruptions in the towns would be dealt with;</li> <li>3) Report needs to show the critical positions in the LGs for the project</li> </ol>	<p>All to note</p> <p>Consultant</p>

Minute	Issue	Action
	<p>are addressed. It should also include the capacity required for the critical staff- natural resources, CDOs, production;</p> <ol style="list-style-type: none"> <li>4) There is need to strengthen the national laws/ policies instead of using the World Bank laws and policies;</li> <li>5) Make the preparation of the ESMF and RAP part of the project preparation;</li> <li>6) LGs have the capacity to recruit for the vacant positions in terms of the wage bill for refilling/ replacement of existing staff and not new staff;</li> <li>7) The reports need to be shared with the LGs.</li> </ol>	
06/11/13	<p><b>Way forward</b></p> <p>It was agreed that:</p> <ol style="list-style-type: none"> <li>1) Formal comments would be submitted to the consultants by Tuesday 19<sup>th</sup> November 2013</li> <li>2) The consultants would submit the final drafts on 25<sup>th</sup> November 2013</li> </ol>	Consultants to Note
	<p><b>Closing</b></p> <p>There being no other business, the Chair thanked members present for their active participation before closing the meeting at 4.37pm.</p> <p>.....  .....  Chairperson</p> 	All to note

**MEETING TO REVIEW THE INCEPTION REPORT FOR THE DEVELOPMENT OF THE ENVIRONMENT AND SOCIAL DEVELOPMENT FRAMEWORK, ESMF AND THE RESETTLEMENT POLICY FRAMEWORK, RAP FOR THE ALBERTINE REGION DEVELOPMENT PROGRAMME, ARSDP, HELD ON TUESDAY 8 OCTOBER 2013 IN THE MLHUD RESOURCE CENTRE.**

**Agenda:**

1. Prayer
2. Introduction
3. Communication from the Chair
4. Presentation and discussion of the ESMF Inception Report
5. Presentation and discussion of the RPF Inception Report
6. Way Forward

**Attendance:**

<b>Name</b>	<b>Organization</b>	<b>Telephone</b>	<b>e-mail</b>
Margaret Lwanga	MLHUD/USMID	0772422947	<a href="mailto:mlwanga@gmail.com">mlwanga@gmail.com</a>
Dorothy Sekimpi	MoES	0776700338	<a href="mailto:dorothysesekimpi@yahoo.com">dorothysesekimpi@yahoo.com</a>
Grace Nankabirwa	MoES	0713-503209	<a href="mailto:gnankabirwa@gmail.com">gnankabirwa@gmail.com</a>
Jacqueline Nassuna	MLHUD	0772461571	<a href="mailto:jnassuna@yahoo.com">jnassuna@yahoo.com</a>
Kajubi Lammeck	Consultant	0782580480	<a href="mailto:l.kajubi@gmail.com">l.kajubi@gmail.com</a>
Aisu Elizabeth	Consultant	078261648	<a href="mailto:elizabeth.aisu@gmail.com">elizabeth.aisu@gmail.com</a>
Grace Balikowa	Consultant	0782409889	<a href="mailto:gbalikowa@gmail.com">gbalikowa@gmail.com</a>
Nampijja Prossie	MoLG	0772196790	<a href="mailto:nampijjaprossie@yahoo.com">nampijjaprossie@yahoo.com</a>
Kaganzi Emmanuel	MLHUD	0772603521	<a href="mailto:kagaemma@gmail.com">kagaemma@gmail.com</a>
Mayombi Jotham	MLHUD	0772333843	<a href="mailto:taremwa2003@yahoo.com">taremwa2003@yahoo.com</a>

**Absent with Apology:**

- |                   |      |
|-------------------|------|
| 1. David Kyadondo | UNRA |
| 2. Sibbo Gloria   | UNRA |

<b>Issue</b>
<p><b>Min. 1/10/13 : Prayer</b> The opening prayer was Led by Ms. Jacqueline Nassuna/ MLHUD</p>
<p><b>Min. 2/10/13: Introduction:</b> All the Institutions were represented save for UNRA who were absent with apologies</p>
<p><b>Min. 2/10/13: Communication from the Chair</b></p> <p>Ms. Margaret Lwanga who chaired the meeting welcomed members to the review of the inception report. Assumed that all members had time to read and therefore will be able to make substantive comments to help improve the methodology. Members were urged to take a keen interest in the exercise to ensure its fruitful completion.</p>

**Min. 3/10/13: Presentation and Discussion of the ESMF Inception Report**

The Inception report for ESMF development was presented by Eng Kajubi Lammeck. He emphasized the unique concept of a multi-sectoral approach that he would be bringing on board. He highlighted the methodology that would be used and the outputs at the various stages. He requested for availability of documents including the USMID ESMF and The Local Government Environment Management Manual. The consultation Plan was also presented.

**Discussion**

1. Other documents necessary for the process to include:
  - The BITVET Act 2008
  - The BITVET Strategic Plan 2012/13 – 2021/22
  - The Physical Planning Act 2010
  - The National Physical Planning Standards and Guidelines 2011
  - Land Use Policy 2008
  - Draft Land Policy
  - District Development Plans
  - District Physical Plans
2. For the Education Institutions there is need to revise the document to include only UPIK Kigumba and UTC Kicwamba as amended in the previous WB Aide Memoire.
3. In recognition of the fact that the ensuing output is an Environment and Social Framework there is need to refer to the contents as Environment and Social Management Plans/ tool etc
4. On institutions to be consulted, NEMA was omitted and should be included.
5. The personnel list was also limited and need to include: from MLHUD a land Valuer, a Physical Planner and a Sociologist; from the Local Government: a Physical Planner and a CDO and to replace the Town Planner with the CDO at the Municipal Council.
6. The members with the above documents were requested to make them available to the consultants as soon as possible.

**Min. 4/10/13: Presentation and Discussion of the RPF Inception Report**

The Inception report for RPF development was presented by Ms. Aisu Elizabeth. She emphasized the use of stakeholder consultative process to the generation of the data in the tool. She also provided the guiding questions to the process that would guide the discussion with stakeholders. She noted the meeting's contribution to the additional documents and the personnel to be consulted. The programme for the consultation was uniform to both the consultants.

**Discussion**

1. The guiding questions should be enriched with the MLHUD Planning questionnaire. The set of questions shall be made available to the consultants by the Senior Physical Planner, Mr. Kaganzi Emma.
2. The available documents on Resettlement, and the Physical Development Plan should be referred to.
3. Under the section on Socio-economic Assessment – There was need to provide tools for the assessment
4. The Voluntary Consent Forms/Agreement should be included in the annex.

**Min. 5/10/13: Way Forward**

The meeting approved the Inception Reports with amendments. The Consultants were requested to provide an amended version by the 9 October 2013.

The next meeting to review the Draft report was scheduled for Friday 1<sup>st</sup> November 2013 pending submission of the report by the consultants.

## Annex 7: Example of ESMP

Environmental issue	Mitigation measures taken or to be taken	Agency in charge of implementing measures	Indicators to be monitored	Agency in charge of monitoring	Frequency of Monitoring
1. Land take prior to construction	<ul style="list-style-type: none"> <li>▪ Mandatory regulatory notice to be given to affected persons before commencing project activities</li> <li>▪ Compensation / resettlement will be undertaken for land owners before project commencement.</li> </ul>	Vocational Institution	Number of land owners not compensated	Chief Government Valuer (CGV)	Monthly
2. Sediment deposition into wetlands	Sediment traps to be provided when working near rivers/ swamps.	Contractor	Muddy color in water	District Wetlands Office,	Monthly
3. Opening and use of quarries and borrow sites	<ul style="list-style-type: none"> <li>▪ Prepare project briefs for all borrow sites as required by NEMA.</li> <li>▪ Restore borrow pits, and return them to original owners without visual blight or residual contamination.</li> </ul>	Contractor	<ul style="list-style-type: none"> <li>▪ Number of land owners compensated</li> <li>▪ Number of borrow pits and quarries restored.</li> </ul>	NEMA (through DEOs)	Upon project commencement and at sites closure (at end of project)

**Annex 8: List of Third Schedule Projects according to *The National Environment Act, Cap 153***

**The National Environment Act  
Third schedule  
Projects to be considered for environmental impact assessment.**

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- 1. General –**
  - a) An activity out of character with its surroundings;
  - b) Any structure of a scale not in keeping with its surrounding;
  - c) Major changes in land use.
- 2. Urban development, including –**
  - a) Designation of new townships;
  - b) Establishment of industrial estates;
  - c) Establishment or expansion of recreational areas;
  - d) Establishment or expansion of recreational townships in mountain areas, national parks and game reserves;
  - e) Shopping centres and complexes.
- 3. Transportation, including-;**
  - a) All major roads;
  - b) All roads in scenic, wooded or mountainous areas;
  - c) Railway lines;
  - d) Airports and airfields;
  - e) Pipelines;
  - f) Water transport.
- 4. Dams, rivers and water resources, including-**
  - a) Storage dams, barrages and weirs;
  - b) River diversions and water transfers between catchments;
  - c) Flood-control schemes;
  - d) Drilling for the purpose of utilizing ground water resources, including geothermal energy.
- 5. Aerial spraying**
- 6. Mining, including quarrying and open-cast extraction of-**
  - a) Precious metals;
  - b) Diamonds;
  - c) Metalliferous ores;
  - d) Coal;
  - e) Phosphates;
  - f) Limestone and dolomite;
  - g) Stone and slate;
  - h) Aggregates, sand and gravel;
  - i) Clay;
  - j) Exploration for the production of petroleum in any form.
- 7. Forestry-related activities, including-**
  - a) Timber harvesting;
  - b) Clearance of forest areas;
  - c) Reforestation and afforestation.
- 8. Agriculture, including-**
  - a) Large scale agriculture;
  - b) Use of new pesticides;
  - c) Introduction of new crops and animals;
  - d) Use of fertilizers.
- 9. Processing and manufacturing industries, including-**
  - a) Mineral processing, reduction of ores and minerals;
  - b) Smelting and refining of ores and minerals;
  - c) Foundries;

- d) Brick and earthenware manufacture;
- e) Cement works and lime processing;
- f) Glass works;
- g) Fertilizer manufacturing or processing;
- h) Explosives plants;
- i) Oil refineries and petrochemical works;
- j) Tanning and dressing of hides and skins;
- k) Abattoirs and meat-processing plants;
- l) Chemical works and process plants;
- m) Brewing and malting;
- n) Bulk grain processing plants;
- o) Fish processing plants;
- p) Pulp and paper mills;
- q) Food processing plants;
- r) Plants for the manufacture or assembly of motor vehicles;
- s) Plants for the construction or repair of aircraft or railway equipment;
- t) Plants for the manufacturing or processing of rubber;
- u) Plants for the manufacturing of tanks, reservoirs and sheet-metal containers;
- v) Plants for the manufacturing of coal briquettes.

**10. Electrical infrastructure, including-**

- a) Electricity generation stations;
- b) Electrical transmission lines;
- c) Electrical substations;
- d) Pumped-storage schemes.

**11. Management of hydrocarbons, including the storage of natural gas and combustible or explosive fuels**

**12. Waste disposal, including-**

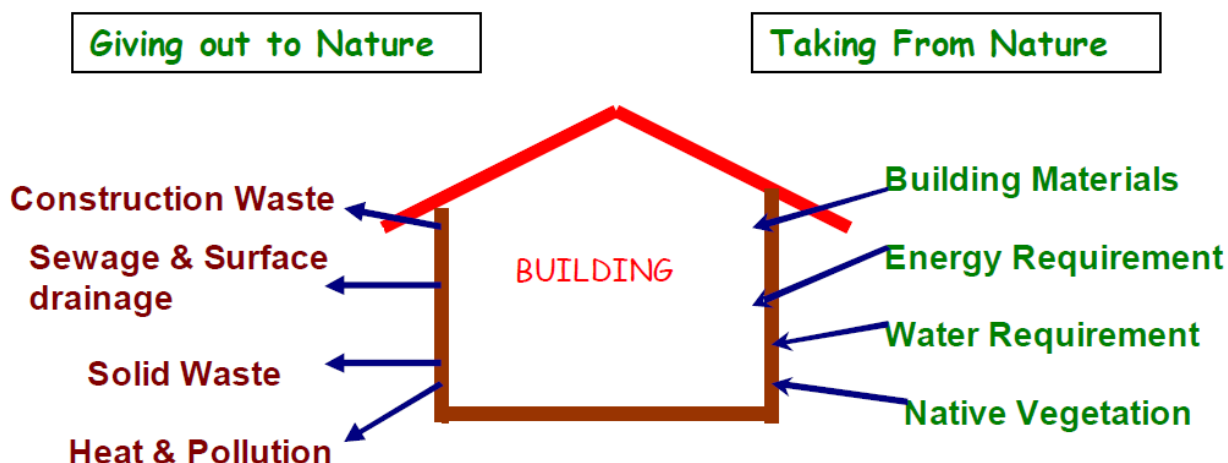
- a) Sites for solid waste disposal;
- b) Sites for hazardous waste disposal;
- c) Sewage disposal works;
- d) Major atmospheric emissions;
- e) Offensive odours.

**13. Natural conservation areas, including-**

- a) Creation of national parks, game reserves and buffer zones;
- b) Establishment of wilderness areas;
- c) Formulation or modification of forest management policies;
- d) Formulation or modification of water catchment management policies;
- e) Policies for management of ecosystems especially by use of fire;
- f) Commercial exploitation of natural fauna and flora;
- g) Introduction of alien species of fauna and flora into ecosystems.

## Annex 9: Typical construction impacts

Typically impacts of construction projects arise from sourcing materials and what is generated after they are used (construction waste) as illustrated below.



Typical impacts are outlined in table below.

	Action	Impact	Mitigation
1	Change of Landuse.	<ul style="list-style-type: none"> <li>▪ Direct Impact – On plot of land</li> <li>▪ Indirect Impact – On neighbouring plots.</li> <li>▪ Cumulative Impact – On surrounding area which will gradually change.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Restrict development to institution's land.</li> <li>▪ Ensure development is permitted by local physical planning office.</li> </ul>
2	Clearing of vegetation.	<ul style="list-style-type: none"> <li>▪ Soil erosion</li> <li>▪ Dust emissions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Minimise vegetation clearing by restring activity to building footprint, as much as possible.</li> <li>▪ Revegetate cleared areas as quickly as practicable.</li> <li>▪ Ensure proper site drainage</li> </ul>
3	Material transportation.	<ul style="list-style-type: none"> <li>▪ Accidents risk.</li> <li>▪ Road dust.</li> <li>▪ Traffic noise at vocational institution's campus.</li> </ul>	Schedule this to be before or after class hours.
4	Building activities.	Construction noise.	Schedule noisy activities to be outside class hours.
5	Risk of falling debris.	Accident to students.	Fence off construction site to avoid access by students.
6	Waste management	Illegal dumping of waste in unauthorized places leading to contamination or grievances by property owners.	<ul style="list-style-type: none"> <li>▪ Ensure waste disposal is done with guidance of local environment officer's guidance and authorization.</li> </ul>

			<ul style="list-style-type: none"> <li>▪ Stripped soil (overburden) should be used for site restoration/ landscaping, rather than being dumped offsite.</li> <li>▪ Workers should not litter campus with litter (plastic bags, water bottles, etc).</li> <li>▪ Reusable waste (e.g. timber planks, paper bags, etc) should be given to local people if requested.</li> <li>▪ Pit latrines should be lined with masonry brickwork to enable their emptying with a honey sucker when full.</li> </ul>
7	Working at heights or depths	<ul style="list-style-type: none"> <li>▪ Risk of falls when workers at height (e.g. roofs) do not use safety latches.</li> <li>▪ Risk of workers being interred by collapsing earth walls when digging pit latrines.</li> </ul>	<ul style="list-style-type: none"> <li>▪ All workers should have appropriate safety gear</li> <li>▪ Latrines should be safely dug on firm ground, carefully watching out for signs of possible wall failure.</li> </ul>
8	Material acquisition	<ul style="list-style-type: none"> <li>▪ Leaving borrow sites unrestored after project completion.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Obtain material from already existing borrow sites and stone quarries.</li> </ul>
9	Employment	<ul style="list-style-type: none"> <li>▪ Local people benefitting from construction projects</li> </ul>	<ul style="list-style-type: none"> <li>▪ Contractors should hire atleast 5 people from the local community at anyone project.</li> </ul>
10	Occupational safety	<ul style="list-style-type: none"> <li>▪ Workers getting buried by collapsing earth walls when digging pit latrines</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pits must never be dug in unstable soils</li> <li>▪ All workers must have necessary safety gear</li> </ul>

## Annex 10: Format of an Environmental Report

A EIA report should include the following items (not necessarily in the order shown):

- (a) *Executive summary*. Concisely discusses significant findings and recommended actions.
- (b) *Policy, legal, and administrative framework*. Discusses the policy, legal, and administrative framework within which the EA is carried out.
- (c) *Project description*. Concisely describes the proposed project and its geographic, ecological, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power plants, water supply, housing, and raw material and product storage facilities). Indicates the need for any resettlement plan or indigenous peoples development plan.
- (d) *Baseline data*. Assesses the dimensions of the study area and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences. Also takes into account current and proposed development activities within the project area but not directly connected to the project. Data should be relevant to decisions about project location, design, operation, or mitigation measures. The section indicates the accuracy, reliability, and sources of the data.
- (e) *Environmental impacts*. Predicts and assesses the project's likely positive and negative impacts, in quantitative terms to the extent possible. Identifies mitigation measures and any residual negative impacts that cannot be mitigated. Explores opportunities for environmental enhancement. Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions, and specifies topics that do not require further attention.
- (f) *Analysis of alternatives*. Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the "without project" situation—in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. For each of the alternatives, quantifies the environmental impacts to the extent possible, and attaches economic values where feasible. States the basis for selecting the particular project design proposed and justifies recommended emission levels and approaches to pollution prevention and abatement.
- (g) *Environmental management plan (EMP)*. Covers mitigation measures, monitoring, and institutional strengthening.
- (h) *Appendixes*
  - (i) List of EA report preparers—individuals and organizations.
  - (ii) References—written materials both published and unpublished, used in study preparation.
  - (iii) Record of interagency and consultation meetings, including consultations for obtaining the informed views of the affected people and local nongovernmental organizations (NGOs). The record specifies any means other than consultations (e.g., surveys) that were used to obtain the views of affected groups and local NGOs.
  - (iv) Tables presenting the relevant data referred to or summarized in the main text.
  - (v) List of associated reports (e.g., resettlement plan or indigenous peoples development plan).

## Annex 11: Capacity Requirements

DISTRICT	DEPARTMENT	HUMAN RESOURCE		EQUIPMENT	TRAINING NEEDS
		AVAILABLE	Missing (NEEDED)	MISSING (NEEDED)	
BULIISA	Physical Planning	<ul style="list-style-type: none"> <li>Personnel and Resource Officer</li> <li>Surveyor</li> <li>Valuer</li> <li>District Natural Resources Officer</li> </ul>	<ul style="list-style-type: none"> <li>Physical Planner</li> <li>Environment Officer</li> <li>Forestry Officer</li> <li>Lands Officer</li> </ul>	<ul style="list-style-type: none"> <li>Office Space</li> <li>2 Vehicles</li> <li>GPS</li> <li>Scanner A4 size</li> <li>Plotter A4 size</li> <li>Office Cabinets</li> <li>9 Computers</li> <li>Furniture</li> <li>Generator</li> <li>Drawing table</li> <li>Tracing Paper</li> </ul>	<ul style="list-style-type: none"> <li>Oil and gas in relation to environment</li> <li>Refresher courses on quarterly basis</li> <li>Study tours</li> </ul>
	Production (Animal Section)	<ul style="list-style-type: none"> <li>Service Providers under NAADS</li> </ul>	<ul style="list-style-type: none"> <li>Veterinary Officer</li> <li>7 Assistant District Veterinary Officers</li> <li>3 Meat Inspectors</li> <li>4 Hides and Skin Inspectors</li> <li>4 Milk Inspectors</li> <li>Laboratory inspector</li> <li>Husbandry Officer</li> </ul>	<ul style="list-style-type: none"> <li>Cold chain for vaccination</li> <li>Slaughter facility</li> <li>7 GPS</li> <li>Computer set</li> <li>3 laptops</li> <li>1 Vehicle</li> <li>Office Cabinets</li> <li>Desks and Chairs</li> <li>4 Motorcycles</li> </ul>	<ul style="list-style-type: none"> <li>Training in HACCPs for all officials</li> <li>Farm training in pest and disease control</li> <li>Study tour exposure to Kenya</li> </ul>
	(Crop Section)	Senior Agricultural Principal Agricultural officer	<ul style="list-style-type: none"> <li>7 Agricultural extension Officers</li> <li>District Commercial Officer</li> <li>Assistant Commercial officers</li> </ul>	<ul style="list-style-type: none"> <li>Computers</li> <li>Printers</li> <li>8 Laptops</li> <li>2 Vehicles</li> <li>8 Motorcycles</li> <li>2 planned clinics and kits</li> </ul>	<ul style="list-style-type: none"> <li>Staff and farmer refresher courses in modern farming techniques</li> <li>Agronomy,</li> <li>marketing information,</li> <li>cooperatives and</li> </ul>

					<ul style="list-style-type: none"> <li>SACCO management</li> </ul>
	<b>(Fisheries Section)</b>	<ul style="list-style-type: none"> <li>3 Fisheries Officers</li> <li>1 Assistant Fisheries Officer</li> </ul>	<ul style="list-style-type: none"> <li>9 Assistant Inspectors for each BMU</li> </ul>	<ul style="list-style-type: none"> <li>1 Vehicle</li> <li>3 Motorcycles</li> <li>2 Dings</li> <li>2 Out Boats</li> <li>Drying Racks</li> <li>Smoking kilns</li> <li>Ice plant at landing site</li> <li>Life Jackets</li> </ul>	<ul style="list-style-type: none"> <li>Training in all stages of handling fish</li> <li>Rules and regulations governing fishing</li> <li>Fish farming</li> <li>Boat building</li> </ul>
	<b>Entomology Section</b>	<ul style="list-style-type: none"> <li>1 Entomology Specialist</li> </ul>	<ul style="list-style-type: none"> <li>Control Officer</li> <li>7 Extension Workers at sub/county</li> <li>5 Tsetse fly control Officers</li> </ul>	<ul style="list-style-type: none"> <li>Office space</li> <li>2 computer sets</li> <li>Printer</li> <li>GPS</li> <li>Office Cabinets</li> <li>Furniture</li> <li>Laboratory</li> <li>8 Motorcycles</li> <li>Tsetse fly traps</li> <li>Chemicals</li> </ul>	<ul style="list-style-type: none"> <li>Refresher courses in modern pest and disease control techniques</li> <li>Exposure study tours for farmers</li> </ul>

	<b>Planning Department</b>	<ul style="list-style-type: none"> <li>• District Planner</li> <li>• Statistician</li> </ul>	<ul style="list-style-type: none"> <li>• Senior Planner</li> <li>• Population Officer</li> <li>• Assistant Statistician</li> <li>• Data Entry Clerk</li> <li>• Secretary</li> </ul>	<ul style="list-style-type: none"> <li>• Hard work tools</li> <li>• Software like Data capture</li> <li>• 1 Vehicle</li> <li>• 2 Motorcycles</li> <li>• 2 Desktop computers</li> <li>• 2 Laptops</li> </ul>	<ul style="list-style-type: none"> <li>• Upgrading courses in data collection, analysis and dissemination</li> <li>• Refresher courses in project planning and management</li> <li>• Budgeting and development planning</li> <li>• Monitoring and evaluation</li> <li>• Oil and Gas policy</li> </ul>
<b>BULIISA TOWN COUNCIL</b>	<b>Engineering</b>	<ul style="list-style-type: none"> <li>• 1 Senior Assistant Engineering Officer</li> <li>• 1 Road Overseer</li> <li>• 1 Secretary</li> <li>• 1 Driver acting as Mechanic</li> <li>• 1 Operator</li> </ul>	<ul style="list-style-type: none"> <li>• District Engineer</li> <li>• Assistant Engineering Officer</li> <li>• Supervisor of Works</li> <li>• 3 Assistant Engineering</li> <li>• 2 Road Inspectors</li> <li>• 2 Road Overseers</li> <li>• 1 Mechanic</li> <li>• 1 Driver</li> <li>• 1 Secretary</li> <li>• 6 Operators</li> </ul>	<ul style="list-style-type: none"> <li>• Office Space</li> <li>• Furniture</li> <li>• 3 Desktop Computers</li> <li>• 2 Laptops</li> <li>• 1GPS</li> <li>• Service Van</li> <li>• Bulldozer</li> <li>• 1 Grader</li> <li>• 1 Dump Truck</li> <li>• Wide Load Vehicle</li> <li>• Parking Shade</li> <li>• Equipped Mechanical Workshop</li> </ul>	<ul style="list-style-type: none"> <li>• Training in computer software</li> <li>• Training in computer programs and software</li> </ul>
	<b>Health Section</b>	<ul style="list-style-type: none"> <li>• 1 Senior Clinic Officer</li> <li>• Store keeper</li> <li>• Driver</li> </ul>	<ul style="list-style-type: none"> <li>• District Health Officer</li> <li>• Assistant Health Officer</li> <li>• Health Inspector</li> <li>• Stenographer</li> </ul>	<ul style="list-style-type: none"> <li>• 1 Vehicle</li> <li>• 7 Motorcycles</li> <li>• Cold Chain Stores</li> <li>• 3 Laptops</li> <li>• Furniture</li> <li>• CD4 Machine</li> <li>• 7 Sanitation Plants</li> </ul>	<ul style="list-style-type: none"> <li>• Training in management and Finance</li> <li>• Training in VHTCs</li> </ul>

	<b>Administration / Principal Human Resource Office</b>	<ul style="list-style-type: none"> <li>• Personnel Officer</li> <li>• Records Officer</li> <li>• Office Typist</li> </ul>		<ul style="list-style-type: none"> <li>• Office space</li> <li>• Electricity</li> <li>• Furniture</li> <li>• 2 Laptops</li> <li>• 1 Vehicle</li> <li>• 7 Motorcycles</li> </ul>	
	<b>Education</b>	<ul style="list-style-type: none"> <li>• District Education Officer</li> <li>• District Inspector of Schools</li> <li>• District Registrar</li> <li>• Assistant Inspector of schools</li> </ul>	1 Inspector of Schools	<ul style="list-style-type: none"> <li>• 3 Motorcycles</li> <li>• 2 Vehicles</li> <li>• Office Cabinets</li> <li>• Furniture</li> </ul>	<ul style="list-style-type: none"> <li>• Educate population to work hard</li> <li>• Improve grass root education, nursery and primary</li> </ul>
	<b>Water Unit</b>			<ul style="list-style-type: none"> <li>• Office space</li> <li>• Water testing Kits</li> <li>• Borehole Tool Box</li> <li>• 1 Desktop Computer</li> <li>• 2 Laptops</li> <li>• Furniture</li> <li>• 1 Vehicle</li> <li>• Store</li> <li>• Printer</li> <li>• Scanner</li> <li>• 7 Hand GPS</li> <li>• 7 Motorcycles</li> <li>• Laboratory</li> </ul>	<ul style="list-style-type: none"> <li>• Training on machine like water pumps</li> <li>• Water resources maintenance, disease control</li> </ul>
<b>HOIMA SCHOOL OF NURSING &amp; MIDWIFERY</b>			<b>Gap for staff</b> <ul style="list-style-type: none"> <li>• 6 midwives tutors</li> <li>• 8 nursing tutors</li> <li>• 4 public health</li> <li>• 4 guards</li> <li>• 4 cooks</li> <li>• 1 more librarian</li> </ul>	<ul style="list-style-type: none"> <li>• Class blocks</li> <li>• 10 Computer and internet</li> <li>• 4 laptops</li> <li>• Nurse and midwives skills laboratory</li> <li>• 1 vehicle for student practicals</li> <li>• 1 vehicle for administrators</li> </ul>	<ul style="list-style-type: none"> <li>• Teaching skills for medical officer</li> <li>• Post graduate diplomas for all staff</li> </ul>

			<ul style="list-style-type: none"> <li>• 1 more ICT officer</li> <li>• 2 more drivers</li> <li>• 1 more office attendant</li> <li>• 6 wardens</li> <li>• 1 laboratory</li> <li>• Environmental officer</li> </ul>	<ul style="list-style-type: none"> <li>• Tractor for the farmers</li> <li>• Generator</li> <li>• Furniture</li> <li>• 150 computers for library</li> </ul>	
<b>UGANDA TECHINICAL COLLEGE KICHAMBA</b>			<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Library</li> <li>• ICT Block</li> <li>• No laboratories</li> <li>• No fluid/water resources lab</li> <li>• No environment Engineering lab</li> <li>• No highway engineering lab</li> <li>• No soil testing lab</li> <li>• Electrical/electronic lab</li> <li>• No computer lab</li> <li>• General Sciences lab</li> <li>• Bus</li> <li>• Models for modern vehicles</li> <li>• Tractor &amp;Accessories</li> </ul>	
<b>UGANDA PETROLEUM INSTITUTE KIGUMBA</b>				<ul style="list-style-type: none"> <li>• Staff houses</li> <li>• Students houses</li> <li>• Administration block</li> <li>• Training blocks</li> <li>• Waste management plant</li> </ul>	

District	HUMAN RESOURCE			EQUIPMENT	TRAINING
Hoima District	DEPARTMENT	AVAILABLE	MISSING	MISSING	
	<b>Natural Resources</b> (Environment, Lands Forestry, physical planner )	<ul style="list-style-type: none"> <li>• 10 natural resource person</li> <li>• Lands officer</li> <li>• Registry</li> <li>• Survey</li> <li>• Valuer</li> <li>• Forestry staff capacity is not filled up.</li> </ul>	<ul style="list-style-type: none"> <li>• 8 are missing</li> <li>• Head of Natural Resource</li> <li>• Forestry not filled</li> <li>• Senior lands officer with Law qualifications</li> <li>• Registry of titles with Law qualifications</li> <li>• 2 more valuer needed</li> <li>• 2 Surveyor</li> <li>• 2 Cartography</li> <li>• Physical planner</li> <li>• 3 printer</li> </ul>	<ul style="list-style-type: none"> <li>• No equipment in general</li> <li>• GPS</li> <li>• Camera</li> <li>• Safety equipment like life jackets</li> <li>• Field vehicle</li> <li>• Motorcycle</li> <li>• GIS programs</li> <li>• Computer and programs</li> <li>• Updated surveying kit</li> <li>• Standard maps</li> <li>• Computers</li> <li>• Furniture</li> <li>• 5 laptops</li> <li>• 3 cameras</li> <li>• Plotter and table</li> <li>• Tracing papers</li> <li>• Drafting films</li> <li>• Digital mappers</li> <li>• Drawing ink and table</li> <li>• Monitoring equipment</li> <li>• GIS</li> <li>• Camera</li> <li>• motorcycle</li> <li>• furniture</li> <li>• Thematic maps and demographic maps</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure</li> <li>• Natural resource management training</li> <li>• General training for both new and old staff</li> <li>• Literature about Hoima</li> <li>•</li> </ul>
	<b>Community Development Office</b>	<ul style="list-style-type: none"> <li>• Community development officer</li> </ul>	<ul style="list-style-type: none"> <li>• Senior personnel</li> <li>• 2 probation officer</li> <li>• 7 Community Development Officers</li> </ul>	<ul style="list-style-type: none"> <li>• 1 vehicle</li> <li>• 13 Motorcycle for each staff</li> <li>• Office furniture</li> <li>• 2 motorcycles</li> <li>• Renovation of sub-counties</li> </ul>	<ul style="list-style-type: none"> <li>• Training postgraduate counseling in in</li> </ul>

	<b>Administration/ CAO</b>	<ul style="list-style-type: none"> <li>• Chief Administrative Officer - CAO</li> <li>• ACAO</li> <li>• DCAO</li> <li>• Human Resource</li> <li>• Records officer</li> </ul>	Principal assistant secretary	<p>2 vehicles</p> <p>Furniture</p> <p>Desk computers</p> <p>Heavy printer</p> <p>Internet</p> <p>photocopier</p>	<p>Record management</p> <p>Information management</p>
	<b>Planning</b>	<ul style="list-style-type: none"> <li>• 2 district planners</li> <li>• Support staff</li> </ul>	<ul style="list-style-type: none"> <li>• 4 more needed</li> <li>• Economic statistician</li> <li>• Demographic personnel</li> </ul>	<p>Vehicle</p> <p>Motorcycle</p> <p>GPS</p> <p>Printer for maps</p> <p>Internet</p> <p>furniture</p>	<ul style="list-style-type: none"> <li>• Monitoring and evaluation</li> <li>• Development planning</li> <li>• Project formation</li> <li>• Information management system</li> <li>• M&amp;E</li> </ul>

## Annex 12: Impact Significance

To establish impact significance, two concepts (*likelihood* and *severity*) are utilized as follows:

- a) Impact **likelihood**: how likely is the impact to occur (none, low, medium and high);
- b) Impact **severity**: how severe is the impact (negligible, low, medium, and high). Severity of an impact is a function of a range of considerations including:
  - i) Impact *magnitude*
  - ii) Impact *extent*
  - iii) Impact *duration*
  - iv) Receptor *sensitivity*

Impact **significance** is derived as a combination of the above two concepts as shown in Matrix 1 while indicative examples of impact severity are presented in table below.

Matrix 1: Evaluation of impact significance

(+ve)		Impact Likelihood			
		None	Low	Medium	High
Impact Severity	Negligible	Negligible	Negligible	Negligible	Negligible
	Low	Negligible	Negligible	Negligible - Minor	Minor
	Medium	Negligible	Minor	Minor - Moderate	Moderate
	High	Minor	Moderate	Major	Major

**Table 14:** Indicative examples of impact severity

	Major impact	Moderate impact	Minor impact
<b>Legislative compliance</b>	Expected non-compliance with national regulatory standards or good industry practice (for example, IFC Performance Standards)	Potential for non-compliance with national regulatory standards or good industry practice	Expected compliance with national regulatory standards or good industry practice
<b>Biophysical environment</b>	<p>Long-term (&gt;10 years) and widespread changes to habitat or ecosystem features or functions that reduce its integrity, affect the ability to sustain valued components and may require extensive intervention. The habitat/ecosystem may not recover to its baseline state.</p> <p>Disturbance of a sufficient portion of the bio-geographic population of a species to cause a decline in abundance, distribution or size of the genetic pool such that the population of the species, and other species dependent on it, will not recover naturally to former levels.</p> <p>Major loss or major alteration to an internationally designated site whereby key features will be fundamentally changed</p> <p>Incident that requires mobilisation of international response equipment and crews</p> <p>Major change to the visual quality, setting and feeling associated with a rare or unique (inter)nationally recognised landscape</p> <p>Widespread and permanent change to</p>	<p>Changes to a habitat or ecosystem ecological features or functions that reduce its integrity, but recovery to baseline state is expected within 5-10 years.</p> <p>Disturbance of a sufficient portion of the bio-geographic population of a species to cause a decline in abundance, distribution or size of the genetic pool such that the population of the species, and other species dependent on it, will not recover within several generations.</p> <p>Major loss or major alteration to a locally designated site whereby key elements will be fundamentally changed</p> <p>Injury or death of an IUCN listed “Endangered” species.</p> <p>Incident that requires mobilisation of national / company response equipment</p> <p>Major change to the visual quality, setting and feeling associated with a rare or unique locally recognised landscape.</p> <p>Fundamental change to hydrology and hydrogeology resulting in temporal changes to the watershed.</p>	<p>Reduction in ecosystem or habitat integrity, but recovery to baseline state is expected within 2-5 years with minimal intervention.</p> <p>Disturbance of a bio-geographic population or individuals of a species resulting in a decline in abundance or distribution over one or more generations, but that does not change the integrity of the population of the species or populations of other dependent species.</p> <p>Injury or death of an IUCN listed “Vulnerable” species.</p> <p>Incident that requires mobilisation of on-site response equipment and crews.</p> <p>The development will not affect the key characteristics that contribute to the distinctiveness and/or value of the landscape.</p> <p>A noticeable but not fundamental change to hydrology or hydrogeology.</p>

	Major impact	Moderate impact	Minor impact
	hydrology and hydrogeology in an internationally or nationally designated site.		
<b>Social environment</b>	<p>Physical resettlement (as defined in IFC PS 5) of a community</p> <p>Increased public exposure to health threats that may increase mortality rates</p> <p>Change that differentially affects the life chances (access to health care/medicines) of vulnerable groups (disabled, elderly, female-headed households and those living below officially defined poverty or subsistence levels)</p> <p>Damage to a site of international cultural importance or national site where damage is likely to provoke protest / unrest</p> <p>Unplanned in-migration flows sufficient to cause exceedance of the capacity of numerous components of physical or social infrastructure.</p>	<p>Physical resettlement (as defined in IFC PS 5) of one or more households/businesses</p> <p>Reduction in assets, or access to assets, such that economic displacement (as defined in IFC PS 5) affects five or more individuals, households or businesses.</p> <p>Job losses in small communities with very limited alternative opportunities in the near-medium term (within one year of job losses)</p> <p>Changes likely to prejudice success of an existing policy or plan</p> <p>Change that differentially affects the livelihoods of vulnerable groups (disabled, elderly, female-headed households and those living below poverty or subsistence levels)</p> <p>Damage to a site of national cultural importance or local site where damage is likely to provoke protest / unrest</p> <p>Medium to long-term (&gt;1 year) financial loss to businesses where recovery may be difficult</p> <p>Unplanned in-migration flows sufficient to cause exceedance of the capacity of at least one component of infrastructure.</p> <p>Movement of development traffic through very sensitive areas (e.g. near schools, hospitals) or that may exceed carrying capacity of roads.</p>	<p>Reduction in assets, or access to assets, such that economic displacement (as defined in IFC PS 5) affects 1-4 individuals, households or businesses.</p> <p>Job losses in a community able to adapt and provide alternative job opportunities in the near - medium term (within one year)</p> <p>Damage to a site of local or regional cultural importance</p> <p>Short-term (&lt;1 year) financial loss to owners of businesses where recovery is likely</p> <p>Unplanned in-migration not expected to cause infrastructure capacity exceedance.</p> <p>Increases in incidences of cultural conflict, but expected to be contained within existing social control norms.</p> <p>Increased public exposure to health threats that may increase morbidity rates</p> <p>Decline in access to health care facilities and acquisition of treatment</p> <p>Movement of development traffic through community areas or having the potential to add unsuitable loadings to the road infrastructure</p>